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ORIGINAL LECTURES.

ANÆMIA AND ITS RELATIONS TO THE SEXUAL ORGANS.

A Clinical Lecture delivered at the Long Island College Hospital.

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(Reported by Edward Develin, M.D.)

GENTLEMEN: To-day I call your attention to the subject of anæmia, the relation it bears to the various derangements of menstruation, and the abnormal conditions of the female sexual organization.

Case I.—The first patient, which I here present to you, is twenty years of age. She brings with her, almost, the diagnosis written in her personal appearance. There is an exceedingly interesting chapter in medicine classed under the head of the physiognomy of disease. It is quite surprising how any one, who has taken the time and trouble to acquire the faculty of reading its pages, can detect the different symptoms of disease when looking at the patient. Now, at a glance I see that for one of her age she is undersized, that there has been a general arrest of development to a certain extent; one, however, may be very complete in all proportions, the organization may be as perfectly well developed in those who are of undersize as those who are of medium size; so that the fact of being below the average size does not necessitate lack of power or endurance. We have only to call to mind such men as Napoleon in confirmation of this statement. Therefore, if small stature exist alone, it stands for nothing. But this patient has the physiognomy of disease, and when I tell you she is anæmic, you will doubtless have anticipated the statement. But it is not enough to look at a pale face to base the diagnosis of anæmia upon, because we sometimes have the capillary circulation deficient, and although the patient may look pale and almost waxy, there may be no anæmia present. It may be more a defect of capillary circulation in the cheeks. But there is one point that is almost always infallible, and that is, pallor of the mucous membranes. When we find these pale, we have the physiognomy of disease. I find here the conjunctiva on both sides is perfectly anæmic, the tongue has that peculiar appearance, and so have the lips. We have here all the well-marked symptoms of anæmia; the pulse is extremely anæmic, in fact, she has to some extent the physiognomy of chlorosis. It is, however, necessary to have more than anæmia to have a chlorotic diathesis. This patient also has the peculiar color of hair that occurs in this temperament of females. She has not as much adipose tissue as is usual, but still she is not emaciated. On examination, I distinguish the bruit or murmur of anæmia which occurs with the first sound of the heart, giving us the most marked evidences of anæmia.

Next in order comes the question, What is the cause of this condition? Is it congenital? It may be so. I have seen plenty of chlorotic children. The question is, Is this entirely congenital? if I may be pardoned the term. Is it natural to her, or is it acquired? I find that she has a small circulatory apparatus; in chlorotic patients we have the small heart and bloodvessels almost always connected with an imperfectly developed sexual system; the mammary glands, however, are generally well developed. Such cases we often find with a malformation of the uterus, such as flexion or an infantile uterus; consequently, we have amenorrhœa, or dysmenorrhœa, with all the derangements of the sexual organs which arise from this imperfect development.

This patient informs me she has always been pale; she commenced to menstruate when she was sixteen; has always suffered great pain during menstruation, so much so that she is compelled to keep to her bed, the flow lasting but three days. Her menstruations again, we find, have been very irregular, sometimes five weeks intervening, and on one occasion seven months; always going beyond her time; has never fallen short. The pain, she states, commences a day or so before the flow begins, but as soon as this commences the pain is somewhat relieved.

This is almost a typical case of chlorosis, although there are some points to which I shall call your attention, and which might be better marked. In this case it is not necessary to make a physical exploration of the sexual organs, although in case we fail to relieve by therapeutic measures, then we will examine for the local cause of this dysmenorrhœa. I shall, however, venture to give you the physical signs usually found in a case of this kind. You would find that the uterus does not measure, in its long diameter, two inches; in the next place, the vaginal portion of the cervix is not larger around than my little finger; the measurement of the uterus from before backward is even less than an inch, and is flexed either backward or forward. If this uterus were removed from the body, and held by the end of the cervix, between the thumb and finger, it would fall over; a normal uterus will, to use the expression, stand alone, when removed from the body. The ovaries also may be illy defined, but that is a question; the probability, however, is that they are small. If the ovaries be well developed, it is surprising how they will insist upon the uterus performing its functions to the greatest possible extent of its power; we thus find that the menstruation may be conducted in a proper manner though the uterus be undersized. In the case before you, the menstruations are irregular, the time intervening being abnormally long.

The question is, What can we do? Not much at the age of twenty; had we seen her earlier, we could have secured more complete development of the entire organization; we can now only try to overcome the consequences, and put her on the most nutritious diet and tonic treatment.

I have just asked her the question, if she works in to-

bacco? and her reply was, yes. I mention this because she has that peculiar appearance around the nails of the fingers which is observed in those who are employed in this manner. I cannot explain the character of this appearance, but I have noticed the strong tendency of this nicotine poisoning to produce most marked anæmia.

In the chlorotic patient there is a tendency to the development of a markedly profound anæmia, owing to the fact that the blood-making power of such an organization is defective. So this little girl starting out in life with an imperfect organization, has suffered very much from her conditions of life, especially her occupation in the tobacco factory. And so she is more anæmic now than she has been at any time in the past. We can, however, improve all this by general tonic treatment, including the chalybeates, and bring her up to the highest standard of health possible with such an organization. This will be the extent of our ability in this case.

Case II.—This patient I have presented to you at a previous clinic; she comes here to report progress. She is eighteen years of age; her catamenia occurred two years ago; she then menstruated regularly for five successive months, after which time the menses ceased, and did not return for one year and seven months. She came under our care delicate and anæmic; it was then pronounced to be a case of amenorrhœa, due to general debility and anæmia. Acting upon that principle, she was placed upon restorative treatment; as you observe, the tongue is now perfectly clean, and, as I have just stated, she menstruated one week ago for the first time in nineteen months.

This is a very satisfactory case, as it illustrates what we so frequently see, viz., that these cases of amenorrhœa due to general debility and anæmia, will respond to treatment remarkably well, if you adopt the proper course, bearing in mind that the cause of the amenorrhœa is the depressed condition of the general system. Such cases as these when properly and effectively treated, give you a reputation in your profession; to be able to restore the glow of health and color to the cheeks and lips, and restore the lost function of the sexual organs, is gratifying alike to patient and physician.

Case III.—This young lady is twenty-four years of age, and was born in Nova Scotia. She first menstruated when seventeen years old, the periods being at first from two to three months between; menstruation is, however, now regular, lasting for three days. She comes here complaining of pain in the lower portion of the back; this, however, is not constant, and may be brought about by stooping or lifting. She does not always have this pain during menstruation; the bowels are now regular, although at one time she suffered from constipation.

The question to decide is, whether there is any special trouble with the pelvic organs which gives rise to the pain of which she complains. I hardly think there is anything which especially calls for local treatment. I think, however, we can build up her general health, and by this means relieve her sacral pains, which are almost always due to disease of the pelvic organs; but not so in this case. Now here is a case which might deceive you if you were not on your guard; you notice that she has a particularly healthy color; the capillary circulation in her cheeks is remarkably active; she is, how-

ever, not strong or plethoric; her pulse is weak; she has no more strength than the little pale patient you have just seen.

Another point of interest is that she did not menstruate until she was seventeen years of age; but then we must remember that she was born in a colder climate than ours, so that this function was not, under the circumstances, abnormally retarded. The facts in her history show that her trouble is general, not local, hence we shall let her sexual organs alone, and build up her general health.

Case IV.—This patient you will doubtless remember having seen at one of our previous clinics. She then stated that she was seventeen years of age and had not yet menstruated. After running over her case, noting her size and general lack of development, we came to the conclusion that, though old enough, she was not, however, developed sufficiently to menstruate: that her conditions of life had been such as to retard her menstruation. Therefore her amenorrhœa was conservative. She did not menstruate, simply because she was not able to do so. I dwelt at some length upon how important it was to ascertain the cause giving rise to this amenorrhœa; whether it was due to malformation, arrest of development, either general or local, or an impaired condition of health. In this case we decided that it was due to her general lack of development, and we therefore directed our attention to her general organization, leaving out entirely her pelvic organs, putting her upon constitutional treatment only.

Dr. Cushing, under whose observation she has been, then placed her upon tonic treatment, and has the satisfaction of knowing that she menstruated for the first time just three weeks ago. The tongue and lips, you will here observe, are of a more healthy color, while there appears the glow of increasing health in her cheeks. She has also some warmth now in the hands, which before were cold and damp. The treatment here has been faithfully followed out, and, as you can all perceive, with the most satisfactory results.

Case V.—This young girl is twenty years of age; she informs me that she commenced menstruating when fifteen years of age; she has always been irregular in her menstruations, going from four to eight weeks. During this time she has frequently suffered from a profuse leucorrhœal discharge; this, however, has been relieved by the hot-water douche. The bowels are also habitually constipated. She comes here to-day complaining of severe pain, mostly in the left iliac region, this pain commencing about a week before the menstrual flow and continuing for a day or two after the flow has ceased. A peculiarity of the pain is that it is not intermittent, as the pain of dysmenorrhœa often is. Then, again, the pain is not located in the region of the uterus. Keep this point in mind. This pain has gradually been getting worse with each succeeding menstruation. The patient has but little appetite, and is somewhat anæmic, although she has some color at present; this, however, is only temporary; her pulse is not strong, but still she is not chlorotic. She also complains of pain in the region of the stomach, which is increased upon eating.

Now from the occupation of this girl, which is that of a milliner, we might expect such a condition as we have here, resulting from the constant stoop of the body while

at her work, which retards the portal circulation and keeps the pelvic organs engorged. There are also indigestion and constipation, which arise from these sedentary habits. Now this dysmenorrhea is what I wish you specially to remember, because it is not uterine. I presume her uterus is not at fault, although no physical examination has been made; neither is there any reason for us to do so. Dr. Stewart, under whose treatment she now is, believes that he can cure her without local treatment, and when that is at all possible, it is much better to adopt this plan. I consider it something akin to malpractice to make these physical investigations where there is no local trouble; it is a terrible ordeal for a young girl to submit herself to a physical examination, and it is only justifiable when it must be done. It is a great blunder to investigate these cases on a mere supposition, and I always avoid it when possible. Now, as I have told you, the pain is not in the region of the uterus, but in the region of the ovary and upon the left side; and, by the way, we find that the left ovary is more often the seat of inflammation than the right; then again, the pain commencing a week before the menstrual flow is a symptom which occurs in most cases with great regularity in those suffering from ovarian disease and painful ovulation. In nineteen cases out of twenty presenting these symptoms, you will be safe in making a diagnosis of ovarian trouble; you may not be able to say what the exact pathology is, although it is in all probability inflammatory or hyperæmic, when you have these painful ovulations. If this were a married lady, we could make an examination without outrage to her feelings; we should then find that the ovary was tender to the touch. The ovary in its normal condition will bear a certain amount of pressure, but in this case it would probably be quite tender, and by reflex action might produce nausea. This is the condition of things we find described under ovarian dyspepsia by some of the English authors, more especially within the last year or two by Fothergill, who gives an illustration of these cases. I have no doubt that this girl's trouble is ovarian. You will find in these cases that the menstrual period is irregular, because the uterus is under an abnormal ovarian influence.

I am one of those who believe that the ovaries are the main factors of the whole problem of menstruation; that they give the initial influence; and that they are the primary and most important structure of the sexual system, and, therefore, that menstruation is governed by the ovaries; hence, in disease of the ovaries the menstrual periods become irregular. This leucorrhœa from which the patient suffers, is relieved by injections, and when that is the case it is probably vaginal and not uterine; I have never yet seen uterine leucorrhœa relieved by an injection. I have no doubt the vaginitis is the source of her leucorrhœa, that is very common in such cases as this where the occupation of the patient compels her to bend the body forward, this position interfering with the return circulation.

We have also vaginitis in those who are below par in general health. The mucous membranes becoming relaxed assume an abnormal condition, especially in those of a strumous diathesis. Now in place of annoying this uterus, which is probably behaving as well as it can under its present influence, we shall direct our attention to relieving her vaginitis, and build up her

general health, and thus try to relieve the ovaries. If she be restless at night, give her a little bromide to induce sleep, and, by and by, perhaps a little counter-irritation; also directing her to lie down during the day at intervals if possible, and so remove pressure from the ovaries and secure free circulation; so gradually guiding her along in this way to relieve that ovarian hyperæmia. This, I have no doubt, will afford her great benefit.

This case is extremely interesting for you. See what miserable work you would make of it if you were to direct your attention to the uterus. Suppose you were to give her emmenagogues when she was menstruating; you would simply increase the hyperæmia of her pelvic organs, and only make her worse. You thus see how important it is to find the cause of the difficulty from which this girl is suffering.

Unfortunately, our books have not sufficiently dwelt upon this form of deranged menstruation. I have seen cases of amenorrhœa, dysmenorrhœa, and this irregular menstruation treated by vigorous measures directed towards the uterus when it was not at fault, the disease being ovarian, as in this case. This is a point I desire you to bear in mind. When you have this pain in the left side, especially when it is aggravated by defecation, as it usually is, owing to the peristaltic action of the bowels, you may know that it is in all probability ovarian. As a proof of this, Dr. Stewart informs me just now that, when she is not suffering from constipation, the pain is considerably relieved. This case illustrates a derangement of menstruation which gives something of the same history as the cases of anæmia, but from another cause.

ORIGINAL ARTICLES.

A NEW METHOD OF TREATING LARGE BONE CAVITIES IN THE LOWER END OF THE FEMUR IN ADULTS.¹

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THOUGH in young persons, as a rule, no considerable difficulty is experienced in healing large bone cavities, I have repeatedly experienced with adults, after extensive operations in the lower part of the diaphysis of the femur, a very obstinate condition with reference to complete recovery. Those large bone cavities are, sometimes, not filled up by tissue of permanent existence. Fistulæ remain which, perhaps, after a longer time of careful treatment, show a tendency to heal, but after some exertion or traumatism or constitutional disturbance are apt to open again under renewed suppuration; and though not often, still in some cases, after long years of more or less suppuration and attacks of inflammation, amyloid degeneration, with its fatal consequences, occurs.

In looking carefully over hospital records, one hardly ever fails to find recorded cases of one or the other of these varieties; the majority of them, probably, at last staying away from hospitals, be-

¹ Read before the New York Surgical Society, February 26, 1884.

coming tired of medical treatment as well as of their doctor.

In the three cases which I shall now present I have tried, by means of a plastic operation, to obliterate entirely the bone cavity. The operations consisted, with slight modifications, in forming an anterior flap from the soft parts covering the lower end of the femur, which has its base either corresponding to the articular line or laterally. Then, in our cases, where ankylosis existed in the straight position, the patella is extirpated and the whole anterior wall of the bone cavity is taken away. Finally, an oblique section is made, severing the anterior third of the condyles and descending toward the bottom of the bone cavity. In this way the abruptness of its lower edge is replaced by a smooth, oblique plane. The whole bone cavity must be most thoroughly scraped out and disinfected. I should recommend that a spray of a disinfectant solution should be forced against the bone surface from a short distance. Nothing like that gives such a thoroughly clean bone surface. Then the dorsal flap, whose length must correspond to the extent of the cavity, is depressed toward the bottom of the cavity and eventually fastened by a nail or needle. No sutures are applied. Of course raw surfaces remain above the edges of the flap, which are left to heal by granulation. It is remarkable how the great difference of level, existing in the beginning, disappears in the course of months. By and by that flap is raised again. It seems as if new formation of tissue, probably of a bony nature, takes place below it. I was led to practise this plan by a similar method practised and recommended by my friend, Dr. Neuber, on the head of the tibia. So far as I know, no similar operation has been performed on the lower end of the femur.

All of our three cases are very interesting. They occurred in women of from thirty-eight to forty-six years of age. All of them had a serious osteitis on the lower end of the femur above the epiphyseal junction some twenty-five to thirty-five years ago. None of them underwent any operation at that period, at least no operation by which the bone has been touched. In two, small particles of bone came away spontaneously, and that, in one of them, more than twenty years after the first attack. All had long intervals of fifteen or more years of health with a comparatively useful limb until, in one case from constitutional disturbance after childbirth, in the other two cases from traumatic causes, renewed inflammation took place at the original point of lesion. In all of them large cavities existed in the lower end of the diaphysis, the classical seat of osteomyelitis in young persons. In no case did these cavities contain any dead bone; but granulations, here and there broken down, so that pus lacunæ were formed. Toward the periphery small spiculæ of bone were found scattered between those granulations, but all the cancellar tissue was softened, rarefied, pervaded by granulations and small abscesses. The cortical substance was, to some extent, implicated also. The sharp spoon, without any great force, found a cavity which extended beyond the limits of the healthy bone. Finally it

was arrested by a hard, sclerotic shell. The epiphysis, in all of these cases, was in a state of advanced fatty degeneration, but not pervaded by granulations.

In the upward direction, in all of these cases, there was no distinct boundary towards the medullary canal, at least no bony diaphragm—which is the rule in those standard bone abscesses, which, I think, clinically and pathologically, require a different conception from those just described. Not long ago, I presented to this Society a case of bone abscess in the lower half of the femur. The patient was about twenty-seven years of age, and his history was very similar to that of to-day's patients. In his case, however, the bone abscess was narrow, long, consisting of many small, lengthy pus lacunæ, and reaching almost as far as the middle of the femur. The cortical substance was enormously thickened, and a very small particle of dead bone was found within the cavity. The nature of this case was, I think, exactly the same as in these cases: but the process of new formation of bone was much more active, while the granulating process within the medullary spaces was not so active as to lead to formation of a large cavity at the expense of preëxisting bone tissue. Essentially, however, the contents and walls of this cavity were of the same nature. It seems to me that these cases must be differentiated from those bone abscesses which, within a smooth sclerotic bone cavity, covered by a rather smooth pyogenic membrane, contain a peculiar, creamy pus.

Let me mention that all these patients were born in those regions in which acute osteomyelitis is more frequently observed; one of them from Switzerland, the two others from the lowlands of Northern Germany.

CASE I.—Mrs. P., forty years of age, born in Switzerland, from a healthy family. Had severe "typhoid fever" in her twelfth year, after which she was reduced for a long time to a state of considerable physical feebleness. During this period, and several months after the first-mentioned disease, she fell on her feet from about four to five feet, followed by pain in her knee. This left her for a short time; but, however, it very soon, during her day's work, returned with great severity. A severe inflammation of the bone followed, accompanied for a long time with pain and fever, till, after long application of poultices, an abscess broke above the knee, on the median and lateral aspect of the femur. A great deal of pus escaped, and, later on, several small particles of bone. After about half a year's duration, the process was healed. By and by the limb became useful, and remained so, except that she suffered from what she called "slight rheumatic" pains. There was no ankylosis. She married in her nineteenth year, and had had eight normal births.

In May, 1880, patient fell from a staircase, and received a severe blow against the left knee; was laid up with pain and swelling. About six weeks later, in middle of July, I saw her in consultation with Dr. Huelser. At that time there existed an extensive suppuration in and about the knee, which required a good many incisions. It was found that

the patella was broken, and that a kind of diaphragm passed from the seat of fracture near the upper edge of the patella toward the condyles, thus separating the upper recesses into two cavities, both of which were filled with matter. After about four or five months, patient was again able to walk, with stiff limb, a fistula remaining at the anterior aspect, somewhat above the internal condyle, and another at the outer aspect corresponding to the lower edge of the external condyle. The knee was in hyper-extension, and an abnormal lateral mobility remained for a long time. The sinus led toward the joint, in a downward direction. The lower end of the femur was all the time thickened, the soft parts tense and immovable, but not particularly painful on pressure.

The history of the following two years, during which time the patient was not treated by me, is in short this: the sinus showed tendency to heal, but then with increasing pain and swelling, and absolute powerlessness for weeks, ample discharge occurred, after which the limb returned to a more normal condition. At last the patient consented to a renewed operation, which I had proposed years before, assuming that the real seat of the suppuration must be in the lower end of the femur, and I did it on the 27th of April of last year, in a way similar to that described.

The fractured patella did not offer any peculiar interest. A large cavity occupied the lower end of the thickened femur. It was laid open freely. A fistulous tract led through the obliterated joint between the condyles to the posterior surface of the femur. The fistula on the outer aspect communicated with that. The bone here was also softened and in a state of rarefaction. A good deal of it was gouged away. The soft parts on the anterior aspect were not so intimately depressed into the anterior deep bone cavity, nor was that possible, because in this case I had not yet made the horizontal section of the anterior portion of the condyles. The lower edge of the cavity, therefore, was too abrupt. Gradually complete recovery took place, not, however, without a slight attack of retention about three months after the operation. Still the soft parts, by the process of cicatrization, seemed to have been gradually drawn into the cavity. The limb is completely ankylosed, but reliable and useful. After the operation about four or five months elapsed till cicatrization was complete.

CASE II.—Mrs. B., forty-six years of age, from a healthy family, had in her seventeenth year a severe inflammation, preceded by rigor, above the right knee. The left one was also affected in the beginning, but improved spontaneously. After ten weeks of fearful suffering, an ample discharge of pus occurred above the internal condyle. The wound closed itself after several weeks, broke again after the first trials to walk, and then healed completely, and by and by the limb became useful. Flexion was somewhat impaired, and remained so. In 1870, she suffered from a lung trouble, which was thought to be consumption. During this time again appeared sudden pain in the previously af-

fected limb, with rigors, redness, and swelling. After several weeks, an abscess broke about the old spot. No pieces of bone were discharged. Four months later, patient was able to walk again, but a fistula remained, and mobility grew worse and worse till finally the leg became quite stiff. In January, 1883, patient fell down stairs, was not able to take the necessary care after that, and very soon commenced to suffer again from severe pain above the knee-joint. On March 31st, I was called in consultation with Dr. Babier, and opened a large, apparently periarticular, abscess on the inner aspect, by two long incisions. Sinuses remained, with repeated attacks of retention, apparently due to an osteitic process within the bone. In September, the radical operation was done in the manner originally described. A large opening was found to exist on the anterior aspect of the femoral bone, tightly covered by the quadriceps femoris and upper edge of the patella. The cavity itself reached as far down as the epiphysis, which latter was in a state of advanced fatty degeneration.

Complete recovery took place in about three months. There is almost complete ankylosis. The patient is wearing a brace in order to promote stiffening. The limb is becoming useful and stronger. She is able to walk a few blocks, and improves every week.

CASE III.—Mrs. T., thirty-three years of age, had an acute osteitis in her thirteenth year, for which she was under medical treatment for seven months. An abscess broke, and a yellowish fluid was discharged. For the whole year subsequent to that the leg was stiff and flexed, and the patient was obliged to use crutches, but by using salt-water baths it became almost normal, flexible and useful. Fourteen years later the patient married, and four years after that she was delivered for the second time, that was in 1881. She had a protracted puerperium, with fever, and became much reduced in strength. Two months after that her thigh became inflamed; she was in bed for nine weeks; an abscess broke above the inner margin of the patella, and more of a serous yellowish pus was discharged. That healed, but after a short time renewed inflammation began. A fistula remained, the knee became quite stiff, but gradually could be somewhat used. In May, 1883, a small piece of bone was discharged, and in June, after a renewed attack of severe inflammation, another. In September I saw the patient and proposed an operation. The same was performed at Bellevue Hospital on the 3d of September. I confined myself to laying bare the fistulous opening which led into the bone on its anterior external aspect, corresponding about to upper edge of the patella. The tendon of the quadriceps had to be cut across. The opening was enlarged, and a large cavity scraped out, drained, and treated with the permanent antiseptic dressing. Everything went along nicely for about two months, when renewed retention and inflammation occurred. I then decided to do the radical plastic operation. This was done by my brother on the 28th of November under my directions. The defect of bone in this case was perhaps the largest of all. The

epiphysis was so much flattened and its cancellar tissue so rarefied that it broke under the chisel and was made smooth by means of a knife. The lower part of the diaphysis, the seat of the cavity, was very much thickened, but only a comparatively thin shell of bone remained, into which the large dorsal flap was depressed. Its point was fastened by a steel needle driven into the bone. Recovery has taken place in about ten weeks, and about ten days ago patient commenced to walk with a brace, in order to keep the limb entirely stiff and not allow of the slightest spring-like motion, which existed in this case as well as in that just presented.

The patella, as you see, shows on its rear surface osteitic thickening, and a carious surface just about that point, where, for a long time, it had been exposed to the influence of the inflammatory products.

It was peculiar to all of these cases that the opening into the bone cavity was on the anterior aspect, corresponding about to the insertion of the quadriceps femoris.

A CASE OF SARCOMA IN THE ANTERIOR MEDIASTINUM.

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A. N., a male, came under my notice in the Philadelphia Hospital in December, 1882. His family record was free from any history of malignant disease, and he had enjoyed good health until eight months before. His illness had been chiefly characterized by emaciation and pain in the chest. He was a tall, slightly built man, and when I saw him had evidently lost half his weight. The pain was most severe over the upper segment of the sternum, and radiated around the chest. There was dullness on percussion over the upper part of the sternum, and the respiratory murmur at the right border of the sternum was bronchial. The cardiac sounds, particularly the second, were almost inaudible. The remarkable feature about the above physical signs of percussion and auscultation was the localization of the pathological physical signs to a district scarcely more than four inches square at the upper part of the sternum; the dullness downward was continuous with the cardiac dullness. Elsewhere, throughout the lungs, the physical signs were normal. The pressure-symptoms were very few, principally consisting in some evidences of pressure on the venous trunks, such as lividity of the face, with enlargement of the veins of the upper part of the neck. The other viscera throughout the body were normal. The patient died from exhaustion February, 1883, worn out by pain, which increased with the progress of the case.

Post-mortem.—On removing the sternum and cartilages, they were found to be adherent upon the right side to a mass which occupied the anterior mediastinum. The growth was seven inches long, measuring from the sternal notch, and terminated in a somewhat diffused thickening of the visceral pleura, which covered the anterior margin of the upper and middle lobe of the right lung. The

growth was sausage-shaped and about two and one-half inches broad. It overlaid the aorta, pulmonary artery, and the vessels of the neck, thereby compressing them, and accounting for the muffling of the cardiac second sounds during life. The point of origin of the growth was obscure; it was evidently unconnected with the anterior mediastinal glands, or with the thymus gland; some of the lymphatic glands at the root of the lung were slightly swollen, but not generally involved. The calibre of the trachea was not diminished. The glands of the neck were unaffected on either side. Laterally, at the lower portion of the growth, the pulmonary pleura was thickened at the line of contact with the growth, but the lungs were free from any traces of disease. The pericardial tissues at the right side of the chest were also somewhat thickened. The growth itself was of a fibrous consistence, of a gray-white color, and contained a softened tissue running through its centre. It was found, on microscopical examination, to be composed of medium-sized lymphoid cells, mixed with spindle-shaped cells, and imbedded in a homogeneous stroma, or a stroma which consisted of reticulated fibres and wavy fibrous tissue. The peripheral thickenings of the pleura and pericardium were made up of similar elements.

There are certain reflections, based upon the clinical history of these tumors, which may be profitably considered in this connection. The age of patients suffering from sarcoma is commonly less than in cancerous malignant growths. In *Virchow's Arch.*, Bd. xciii. Heft iii., the statement is recorded that in 7566 autopsies, 158 malignant mediastinal growths were observed; of these, 31 were cases of sarcoma, the average age of the greatest number of cases being 41 years. Twenty of these occurred in males, the average being 38 years; 11 in women, whose average age was 48.

One hundred and twenty-seven of the above (158 cases) were carcinomatous growths, 81 in men with an average age of 53 years; 46 in women, average age of 56 years. In the *Trans. of the Path. Soc. of London*, since 1866, five cases of mediastinal sarcoma have been reported—one by Fenwick in 1882, æt. 29, a male; one by F. S. Eve, æt. 20, in 1880. In 1872, E. Clapton and J. F. Payne reported a case in a male, æt. 37. In 1871, T. B. Peacock, one in a male, æt. 27; and in 1870 one in a male æt. 20 years, by R. D. Powell.

Sarcomatous tumors, however, sometimes occur in the aged, as, for example, a case of sarcoma involving the pericardium in a woman æt. 76 (*Virchow's Arch.*), and a case reported to the Philadelphia Pathological Society, January, 1884, by J. C. Wilson, M.D., occurring in a woman over 60 years old.

The majority of tumors of this character originate and are found in the anterior mediastinal region.

In 24 cases reported by Kahnlich (*Virchow, Bd. xciii.*), 13 occurred in the anterior mediastinal region, originating from the connective tissues therein, 5 from the periosteum of the sternum, 3 from amid the cervical glands, 2 among the bronchial glands, and 1 from the pericardial substance. The thymus, or thyroid glands, may also form foci of origin for

these growths. In the cases quoted from the *London Path. Soc. Transactions*, the origin of the tumors was invariably in the anterior mediastinum; in two of them, however, the posterior mediastinal glands were also involved. The invasion of the various intrathoracic organs in the above cases was chiefly by contiguity, and in general there seems little or no tendency to excite inflammatory action in their vicinity. The lungs were secondarily involved in all the cases to which I have had access, with the exception of two cases: the one reported in this article, and one reported by R. D. Powell, M.D., both of which are unique because the disease was localized only in the mediastinum.

It would seem that the growths in distant parts of the lungs follow the distribution of the lymphatic vessels, the principal site of secondary processes being in the connective tissues surrounding the minute bronchial tubes. It is an interesting fact that while the lung would seem never to be the site of primary sarcoma, yet the pleural tissues may be primarily involved. In the *Med. Record*, January 5, 1884, a number of cases are quoted from Lepine, Birch-Hirschfeld, Böhme, Eppinger, and Schultz, and one by R. W. Greenish (*Journal of Anatomy and Phys.*), in which the growths were abundantly distributed in the pleural tissues as primary formations. The point of origin is believed by these observers to be either directly from the ordinary connective tissue cells or from the endothelium of the lymphatics.

In mediastinal sarcomata the glands of the neck are less commonly involved than when the process is cancerous.

The origin of cancerous growths in the mediastinal region is usually in the posterior portion. In contrasting the respective sites of these two morbid growths, we may expect the physical signs and pressure-symptoms to correspond with the location. The vessels of the neck suffer either directly from pressure or by being converted into rigid tubes, allowing of no adaptation to the amount of blood passing through them. The descending vena cava and bloodvessels of the neck are often dilated. The trachea is very liable to pressure, also the aorta, which is usually covered by the growth, and by being pressed away from the sternum the sounds of the aortic semilunar valves, and those of the pulmonary artery, may be much reduced in intensity. Pressure-symptoms from an aneurism growing laterally, or outward, are analogous; yet, in most cases, by means of bruit or other characters, an expansile blood-containing tumor can be easily distinguished from a solid neoplasm.

The possible predisposing causative influences of occupation deserve a passing mention. In the case reported at the outset, the patient was a shoemaker, accustomed to press his tools of trade against the sternum. The question might be stated thus: Given, a pure family history, free from taint of malignant disease, the etiology of these tumors in this region may be more readily linked with irritation than is the etiology of cancerous tumors. The cases instanced in this paper were mostly free from an ancestry tainted with malignant disease. The anterior

location of these growths in so many cases would also favor the theory of a traumatic etiology.

Sarcomata in the chest, as elsewhere, show a rapidity of development which contrasts with the cancerous type of growth. The general symptoms in cases of intrathoracic sarcoma, such as emaciation or pain, are relative to the size and location of the tumor, and the cachexia of malignant disease is usually well marked.

In the case of the patient recorded under my own observation, the opinion was entertained that we had to do with a malignant growth which would prove a sarcoma. The diagnosis was chiefly based upon the location of the disease in the anterior instead of the posterior mediastinum, upon the age of the patient, upon the rapidity of the progress of the case, which began in April and terminated in the following February, and the exclusion of aneurism chiefly by the absence of the usual signs of a blood-containing tumor.

CASE OF ARTIFICIAL OPENING THROUGH THE ESOPHAGUS INTO THE TRACHEA, PRODUCED BY SWALLOWING A DENTAL PLATE.

BY FRANK E. CASTLE, M.D.,
OF WATERBURY, CONN.

MR. F. S., aged thirty-five, unmarried, died of pulmonary consumption April 21, 1883. An autopsy was obtained, having been requested on account of throat symptoms of a peculiar nature, which had existed since swallowing a small, rubber dental plate nearly fifteen years before.

The following history was obtained, partly from the patient during my attendance on the case, and partly from the family.

The father and mother are now living, and in good health. Two aunts on the father's side died of consumption.

A younger brother has had slight hemorrhages at three or four different times, the first five years ago. He is now without cough, and is apparently well. Mr. S.'s health, previous to the age of twenty-one, when he met with this accident, was uniformly good. On the night of December 31, 1868, Mr. S. retired late, and had been sleeping about an hour, when he was awakened by a severe choking cough, and found himself unable to breathe.

He sprang from the bed, and fell unconscious to the floor, but was soon able to rise and hurry down stairs for some water. As soon as he could speak, he related his experience to his mother, and complained of a terrible pain in the chest.

His breathing was difficult, and accompanied by a loud, stridulous noise, as of one with croup. A doctor was summoned, but it was nearly two hours before his arrival.

In the mean time, Mr. S. had vomited freely, and his breathing had become more tranquil. It was considered a case of congestion of the lungs, and treated accordingly. Mr. S. slowly regained his strength, but was constantly harassed with pain and soreness underneath the sternum, and by a

severe cough. On the twelfth day after the attack, he was able to return to his occupation as book-keeper in a store. On the second day of his illness, he asked for his false teeth, supposing that he had removed the plate from his mouth during the strangling fit, and that it had been laid aside.

It, however, had not been seen, and thinking that it might have been cast out while vomiting, search was made in the snow where the bowl had been emptied but it was not found, although they went so far as to melt the snow with hot water. Even then it was not supposed possible that he could have swallowed it, and these facts were not mentioned to the physician at the time, although later the family were convinced that such an accident had occurred.

After resuming business, his cough persisted, and the soreness beneath the sternum remained; and in the spring his health failed very decidedly. He continued, however, at his employment until the 24th of August, when he went to Minnesota, where he remained eight months. He returned looking much better, but his cough remained the same, and he would frequently choke at the table and reject pieces of food that he had swallowed. At one time, after eating some dried beef, he insisted that a piece had lodged in his throat, and three days later he coughed it up.

In June, 1871, he consulted Dr. Sayre, of New York, who introduced a probang into the stomach, but found no stricture; but a very sore spot was reached, and great pain felt, especially on the withdrawal of the instrument. A treatment of swabbing the throat was instituted by Dr. Sayre, and was carried out for some weeks at home by the family physician. As this seemed of no benefit, and was very painful, it was given up, and for about two years he simply attended to his general health, living in the open air as much as possible, and taking horseback exercise. During these two years, and the two or three following, he had several hemorrhages, in one of which it was estimated that he lost a pint and a half of blood.

About this time, 1872, he engaged again in business, in which he continued until within a week of his death.

When he first came under my observation, he seemed fairly well nourished and of average strength. Besides the symptoms already detailed, he was much troubled with palpitation of the heart, and with the belching of large volumes of air, the latter being much greater after partaking of food or drink. He did not taste the food in the air thrown off, and digestion seemed well performed. He was always a heavy smoker, but cutting down the amount of tobacco used did not much diminish the palpitation.

The heart was free from valvular disease, and the cause of so much belching of wind was not determined.

The difficulty in swallowing already alluded to, demands further consideration, as this symptom bears so directly on what was revealed at the autopsy. Mr. S. found that by bending his head to the left, and projecting his chin forwards and to the right, he had much less difficulty in swallowing and fewer choking attacks. This awkward motion

and the liability of expelling his food with great force during these attacks, deterred him from going much into society and he became somewhat despondent, though naturally of a cheerful disposition.

He continued in the state described until early in the winter of 1883, when he commenced to fail in strength and grow pale. His cough also changed in character, and he expectorated abundantly of purulent matter, and it was evident that his lungs were diseased. Another symptom, unexplained before the autopsy, became prominent during the winter.

Mr. S. would occasionally suffer from attacks of pain in the bowels and vomiting, and when failing to obtain relief from domestic remedies, would send for me to inject morphine. I advised change of climate for the winter, but finding it very inconvenient to leave, he remained at home, where he died in April, 1883. His last few weeks were marked by a very rapid failure, and he died with the ordinary symptoms of phthisis.

Autopsy (eight hours after death).—Present and assisting, Drs. Holmes and Barber. Body less emaciated than usual after death from phthisis. Pericardium, and heart normal. The left lung free from adhesions: the upper two-fifths tuberculous, with small cavities containing purulent matter. Right lung slightly adherent posteriorly at the apex; the upper third tuberculous. Trachea removed, with a corresponding length of the œsophagus. The two organs were fused together from old inflammatory deposit. On slitting up the œsophagus and trachea, the lesion of special interest was presented.

Two inches from the cricoid an oval opening existed, connecting these two tubes. This opening was situated a little obliquely and slightly to the right of the median line and measured one inch and a quarter in its long diameter. By bending the specimen to one side and at the same time slightly twisting it, the edges of the opening could be made to approximate and close it, thus explaining the position assumed by Mr. S., as mentioned in the previous history.

The stomach was dilated; otherwise normal. The intestines were slit through their entire length, and nothing found abnormal until the ileo-cæcal valve was reached, when quite a thickening was seen surrounding this part. About the middle of the transverse colon, a stenosis of the gut was met with, which would but just admit the forefinger, and this size was maintained throughout the remainder of the intestine. Above this narrowing the canal was somewhat dilated. This condition of the intestines leads to the inference that the plate became lodged there temporarily and then passed on through the bowels.

The attacks of pain already alluded to were probably due to temporary obstruction. Two gall-stones filled nearly the entire gall-bladder, each three-quarters of an inch in diameter; the remaining space was filled by several smaller ones. All of the other organs were healthy.

REMARKS.—In explanation of the large amount of wind which was belched, I offer the following:

That during deglutition, air would pass from the trachea through this opening into the oesophagus and be carried before the food into the stomach, which it simply distended mechanically, for this symptom was most pronounced after meals.

That the plate was swallowed, I think the history abundantly shows; also, that the opening was made by the plate and that it had existed since the illness of 1868, for the symptoms remained practically unchanged from that time until his death.

That the lesion was not the result of syphilis or tubercle is evident, for never has there existed a symptom of the former, and not of the latter until six months of his death.

In searching the literature to which I have access, I can find no case similar to the one here presented.

MEDICAL PROGRESS.

HYDROFLUORIC ACID AND THE FLUORIDES IN ANEURISM AND CARDIAC DISEASE.—SURGEON L. A. WADDELL, of Calcutta, who has been making an extended study of the physiological and medicinal action of hydrofluoric acid and the fluorides, says that in aortic aneurism fluorine may be admissible on account of its property of combating vascular fulness; but in endeavoring by its aid to relieve the arterial tension, care must be taken not to induce such an advanced state of anæmia as will aggravate those degenerative changes, to which the aneurismal swelling partly owes its origin. It will also be obvious that the dose must be sufficiently small to avoid the possibility of vomiting. Fluorine is unlikely to assist in the removal of material which is actually effused and organized.

In mitral disease the use of these drugs must be invariably bad, for they weaken the heart, and have none of the tonic and stimulating properties which render digitalis of such value in this affection. In aortic disease the ultimate effect would be to aggravate dangerously the low arterial tension which obtains during the ventricular diastole.—*Indian Med. Gazette*, December, 1883.

OVARIOTOMY ON A CHILD.—At the meeting of the Gesellschaft für Geburtshilfe und Gynäkologie, in Berlin, on October 26, 1883, DR. ROEMER reported the case of a child, æt. twenty months, upon whom he had performed ovariectomy two months previously.

The child had learned to walk at the age of fifteen months, at which time the parents noticed a peculiarity in its gait. It was taken to the Augusta Hospital, when it was observed that the abdomen was very prominent and the lumbar vertebræ were lordotic, while the dorsal vertebræ and the upper part of the body were bent very far backward. On examination, a fluctuating, movable tumor was felt in the pelvis, which could be recognized as high as the umbilicus. Puncture showed that it contained clear, albuminous serum, and the case was diagnosed as a mixed cystic tumor, probably of the ovary, though possibly arising from the mesentery. Within two weeks the tumor had grown so much that it extended above the umbilicus and almost to the xiphoid cartilage, and reached on either side to the mammary line. It was again punctured, and about $f\frac{3}{4}$ x of fluid withdrawn. A few days afterwards laparotomy was

performed, although the diagnosis of ovarian tumor was not certain. As soon, however, as the abdomen was opened, it was seen that the tumor sprang from the right side of the uterus by a long, thin pedicle. This was ligated and cut off, and the tumor removed entire. The left ovary was found to be perfectly normal. The child made a good recovery.

The pathological examination of the tumor was made by Dr. O. Israel, who found it to be a teratoma.—*Deutsch. med. Wochens.*, December 26, 1883.

LIGATION OF COMMON CAROTID FOR TRAUMATIC ANEURISM.—DR. J. THAD. JOHNSON, of Atlanta, reports the case of a man who received a penetrating wound from the blade of an ordinary pocket-knife, in the side of the neck, about an inch below the angle of the jaw. Free hemorrhage occurred, but was soon arrested, and then entirely ceased. On the eighth day a small tumor was discovered, which steadily grew. On the twentieth day hemorrhage again occurred, and was again stopped by pressure. The tumor now grew so rapidly that the common carotid was ligated on the twenty-fourth day. Several hours after the operation the patient was discovered to be hemiplegic. He gradually sank, and died thirty-six hours after the operation.—*Southern Medical Record*, January, 1884.

EMBOLISM AND PARALYSIS FROM PLEURAL IRRIGATION.—ESCHERICH has recently reported cases in which embolism and paralysis have resulted from washing out the pleural sac in empyema. He reports a case which occurred in the service of Prof. Gerhardt, of Munich, in which the patient died soon after an apoplectic attack. The autopsy showed an abscess situated under the dura mater on the left side, with other smaller abscesses in the left hemisphere. Leichtenstein has published a similar case; and Dusch has reported one in which an embolus of the pulmonary artery was caused by washing out the pleura, as was shown by the autopsy.

Nervous accidents are also seen to occur during the operation, their pathogenesis being still a matter of some doubt. Paralysis of the arms and other parts of the body has also been known to be caused by this operation, and Lépine has seen reflex paralysis in cases of this nature, having its origin in the intercostal nerves.—*Gaz. Méd. de Paris*, Jan. 19, 1884.

EXCESSIVE VOMITING OF PREGNANCY.—In a recent paper on this subject DR. SUTUGIN draws the following conclusions:

1. Excessive vomiting is one of the uncommon affections of pregnant women.
2. The affection appears after the second, and up to the last months of pregnancy; but it is much more frequent during the first half of the period of pregnancy.
3. The affection is more frequent amongst the richer classes. Race has no influence in its production.
4. It is more frequent in multiparæ.
5. The symptoms of the affection are very analogous to those of inanition, which explains the decreased urinary secretion, and the presence of albumen and cylinders in the urine.
6. In order to solve the question of the frequency of the appearance of albumen and casts in the second period, further observations are necessary.
7. Death takes place either by exhaustion or by in-

tercurrent puerperal disease, or from complicating diseases which have no direct relation with pregnancy.

8. The nature of the affection is still unknown.

9. The treatment should correspond to the different periods of the affection. If therapeutic means fail in the second period, premature delivery should be resorted to.—*Archives de Tocologie*, February, 1884.

THE TREATMENT OF RHEUMATIC FACIAL PARALYSIS.—At the close of a paper on this subject, read before the Berliner Medicinische Gesellschaft, on January 9th, DR. MORITZ MEYER drew the following conclusions:

In facial paralyses of a severe type, leeches, cataplasms, etc. are to be recommended—to hasten the cure on the one hand, and, on the other hand, to limit the number of degenerating nerve-fibres.

2. After the use of leeches, cataplasms, etc., direct manipulation over the nerves gives better results than have hitherto been obtained by electricity.

3. In chronic cases, the electric stimulus of strong faradic currents over the nerves should be tried, in order to stimulate the normal nerve-fibres, and increase the mobility and nutrition of the paralyzed muscles.—*Deutsche med. Wochens.*, Jan. 17, 1884.

INHALATIONS OF OXYGEN IN THE ANOREXIA AND VOMITING OF PREGNANCY.—DR. A. MAYER reports four personal cases, and one of Dr. Maunoir, which show the influence of oxygen in combating the anorexia and vomiting of pregnancy. In these cases the symptoms did not present the same degree of intensity, but all showed the surprisingly rapid effect of the oxygen treatment. After the first inhalation of from five to ten quarts of oxygen the amelioration was undoubted, and a few inhalations were sufficient to give excellent results. In very severe cases reported by Pinard, the oxygen treatment succeeded after other therapeutic agents had been tried in vain. This method is perfectly harmless to the fœtus.—*Journ. de Méd. de Paris*, February 2, 1884.

EXPERIMENTAL PROOF OF HYDROPHOBIA.—A boy, aged seven years, died with a curious collection of symptoms, which were similar to those of hydrophobia. PROF. PASTEUR, to establish the diagnosis, inoculated two dogs and two rabbits with portions of the cerebral substance and the medulla. All four of the animals died with symptoms characteristic of the disease.—*Gaz. Med. di Torino*, February 15, 1884.

MOIST SPREADING GANGRENE OF FOOT AND LEG IN AN OLD MAN; HIGH AMPUTATION.—MR. RIVINGTON, of the London Hospital, reports the case of a man, æt. 63 years, who suffered from moist spreading gangrene, caused by a slight accident. The gangrene extended to the ankle-joint, and the skin of the leg presented an inflammatory appearance to within a couple of inches of the knee-joint, and the limb was œdematous. The glands in the groin were enlarged. On the next day Mr. Rivington amputated the leg immediately above the knee. The arteries were atheromatous. On the following day the edge of the anterior flap was found to be gangrenous, with a suspicious dusky redness extending upwards. Two days later, the gangrene of the anterior flap had spread, but on the following day the stump looked better, and a line of demarcation had

formed. Four days later the carbolic dressings were abandoned; the stump was thoroughly irrigated, powdered iodoform was dusted over it, strapping used to approximate the flaps, and cotton-wool and bandage applied. The patient slept and ate well. He wandered a little on one or two occasions. From this time the wound granulated healthily; the bone, which had protruded after retraction of the flaps, became gradually less prominent as the edges of the flaps approached each other during the healing process. Mr. Rivington believes that amputation saved the patient, although, of course, it is not possible to assert this positively. Neither can any very definite rule be laid down as to the choice of amputation or leaving the case to nature in senile gangrene. In some cases where the patient's arteries generally are diseased, when pressure induces gangrene of the soft parts over prominent points of bone, and when the patient appears broken down and worn out, amputation would speedily extinguish life; but on the other hand, he is persuaded that some of the many cases which have died when left to nature would have had their lives prolonged by operation.

As regards the seat of amputation for gangrene of the foot and lower part of the leg, the lower third of the thigh appears to him to be the safest and best place, as in cases which follow plugging of the femoral artery the gangrene rarely extends beyond the lower part of the thigh. Here the vitality of the part is greater, the healing powers more active, and there is far less liability to a return of the disease than there would be below the knee. In his own experience amputation in the lower third of the thigh is a very successful procedure, especially with antiseptic precautions. Whether high amputation should be resorted to or not in other forms of gangrene is not so clear. In traumatic cases and in septic cases he has generally amputated immediately above, but clear of, the disease, and he followed this practice in a case of double amputation for gangrene from frost-bite with a successful issue, and without the recurrence of gangrene or sloughing of the flaps.—*Lancet*, February 16, 1884.

PORRO OPERATIONS.—In a letter to the *British Medical Journal*, of February 16, 1884, DR. CLEMENT GODSON states that Dr. H. Fehling, of Stuttgart, performed his fifth Porro operation, on January 26th, in a case of rickety pelvis. Both mother and child are well. His five operations have given four recoveries, the same result as obtained by Prof. Porro. He also states that Dr. Savage performed the operation during the sixth month of pregnancy, in Sept. 1883, the patient recovering.

EXTIRPATION OF GOITRE BY MEANS OF THE ELASTIC LIGATURE.—DR. G. USIGLIO reports the case of a patient, æt. 56, who had enlargement of the thyroid body, due to hyperplasia of the left lobe, in which the enlargement was removed by means of the elastic ligature. The part came away in five days, and the patient recovered easily.

Two months previously, March, 1833, Dr. G. B. Masta had successfully employed the same means for the removal of a pedunculated tumor. De Vecchi and Castelleone have also reported cases.

An incision is made in the skin, in which the ligature is placed, the wound being disinfected and the ligature tightened daily.—*Gazz. degli Ospitali*, January 16, 1884.

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ENTERECTOMY AND ENTERORRHAPHY IN GANGRENOUS HERNIA.

THE management of the gangrenous intestine in cases of strangulated hernia is, in view of the evil consequences which are liable to follow the condition of the bowel, a question that involves more than ordinary judgment and demands serious consideration. The usual practice, after having relieved the stricture, is to open the tube and attempt the establishment of an artificial anus. That efforts in this direction have for many years been regarded with disfavor is shown by the fact that Ramdohr, in 1727, excised two feet of the mortified bowel, stitched the ends together, and saved his patient. Up to 1846, the operation was repeated by De Vermale, Duverger, Schmid, Nayler, Boyer, Laville, Dieffenbach, Luzenberg, and twice by Astley Cooper, the entire 11 cases having resulted in 7 complete cures, 1 recovery with an artificial anus, and 3 deaths.

The procedure appears to have been lost sight of from 1846 to 1873, when it was revived by Lücke, and it has been practised during the past ten years at least sixty-seven times. It consists, in a few words, of relieving the stricture, drawing down and resecting the dead gut along with its attached mesentery, reestablishing the continuity of the canal by appropriate sutures, and returning the parts into the abdominal cavity.

In our account of the results of the operation and some points concerning its proper performance since its revival, we have to express our indebtedness more

especially to several papers which have appeared during the past year, of which the most noteworthy are those of REICHEL, of Breslau, BOUILLY, of Paris, and ILL, of Newark, which may be found, respectively, in the *Deutsche Zeitschrift für Chirurgie*, Bd. xix. Hefte 2 and 3, the *Revue de Chirurgie*, No. 5, and the *Medical Record*, Vol. 24, No. 12.

Circular resection and suture of the intestine in strangulated gangrenous hernia has been done by Fischer and Obalinski, each in 4 cases, by Billroth, Kocher, and Kuester, each in 3 cases, by Bardeleben, Bouilly, Bryk, Czerny, Dittel, Hagedorn, Ill, and Wittergrén, each in 2 cases, and by Aman, Bardenheuer, Borel and Scherer, Feld, Fuller, Gaittai, Gussenbauer, Hertaux, Heusner, Jaffé, Julliard, Korzeniowski, Kosinski, Krönlein, Langenbeck, Ludvik, Lücke, Marcy, Molodenkow, Nicoladoni, Porter, Prati, Riedel, Rochelt, Roggenbau, Roser, Rydygier, Schede, Taendler, Viertel, Von Wahl, Weinlechner, Weiss, and Wolfier, respectively, in 1 case. Of the 67, 21 were complete cures, 2 recovered with an artificial anus, and 44, or 65.67 per cent., died.

As might naturally be expected, peritonitis was the cause of the fatal issue in the majority of cases. In two it was due to alcoholic delirium, so that, even if these cases be excluded, the mortality is twice as great as that following resection and suturing of the gut for artificial anus, as was pointed out in the editorial columns of THE MEDICAL NEWS for February 2d. This difference may, however, be readily accounted for when the condition of the intestine in the two lesions is considered. In gangrenous hernia the divided ends of the gut are very liable to be œdematous, ecchymosed, and inflamed, through which they are rendered soft and lacerable. That the circulation of the gut at the point of suture is extensively damaged is shown, first, by the cases of Kocher and Taendler, in which the upper end became gangrenous above the point of operation, respectively, for four and six inches; secondly, by three examples of laceration during the necessary manipulations; and, thirdly, by three instances of giving way of the sutures. In resection for artificial anus, on the other hand, sound intestine is divided and sutured, and these exciting causes of peritonitis, except it may be loosening of the stitches, are gotten rid of.

In performing the operation the following points should command the most careful attention:

1. To prevent effusion, the lumen of the gut must be temporarily occluded. This may be accomplished with a provisional catgut or silken ligature, but this method is open to the objection of throwing the intestine into folds which interfere with the proper insertion of the sutures. The occlusion may be effected with a clamp or forceps, or, still better,

with the fingers of assistants, as advised by Billroth, Fischer, Gussenbauer, Czerny, and Ill.

2. If gangrenous, a triangular portion of the mesentery should be removed, and the edges united by suture after the vessels are secured; if sound, it may be ligated in mass. In either event, the mesentery must not be separated from the bowel beyond the points of severance of the latter, lest gangrene of the edges of the wound ensue. Rydygier advises that the mesentery receive attention after the intestine has been resected, but in this he has no followers. The gut should be divided at a right angle to its axis, unless one end is smaller than the other, when the cut should be made at an acute angle.

3. The most important step of the operation is the insertion of the sutures, the material for which, in the present state of our knowledge, should be pure silk soaked in a proper solution of corrosive sublimate. The safest and most efficient mode of uniting the severed ends of the gut is with what is known as the Czerny-Lembert suture. This consists of an inner row of stitches, which are inserted at a distance of one-eighth of an inch from one another, and which include all the coats of the bowel, and an outer row, not so close together, each of which includes the serous covering only, and constitutes the classical suture of Lembert. If it should happen that the mucous membrane protrudes too much, as it may through the retraction of the muscular tunic, it should not be cut off on a level with the latter, as advised by Ill and Rydygier, but the inner row of stitches should be applied in such a way as to exclude it. Finally, the accurate approximation of the edges of the wound will be greatly facilitated if the first suture be inserted on the mesenteric side of the intestine, and the second at a point directly opposite.

As we have already seen, the damaged condition of the gut in the immediate vicinity of the gangrenous portion is the chief cause of failure after the operation. Hence, to insure better success in the future, the intestine should be resected only through a sound and undistended portion, beyond the seat of infarctions and effusions, since the sutures still further interfere with the vascular supply, and render partial or total gangrene of the edges of the wound imminent. It is for this reason that we consider the course pursued by RIEDEL, as described in the *Deutsche medicinische Wochenschrift*, No. 45, 1883, as being worthy of imitation. The gangrenous portion of the intestine having been withdrawn from the sac, and attached to the thigh by a few stitches, is drained by a large tube passed into the upper portion of the bowel. At the end of twenty-four hours, the parts in the interval having been kept moistened by naphthaline, or other antiseptic agent, the normal condition of the gut will

have been restored, as indicated by the disappearance of the local signs of inflammation, and the return of its firmness, when the operation may be proceeded with. Whether this course be pursued or not, care must be taken to cut through sound tissues, even at the expense of removing a larger amount of the tube, which really appears to be a matter of very little moment, as the cases do as well after resection of eight or ten inches as after the excision of two or three inches.

The question naturally arises, Does circular resection and suturing of the gut in gangrenous hernia present any advantages over attempting the formation of an artificial anus? In the present state of our knowledge, an intelligent answer can scarcely be made, because we know so little of the mortality of the latter conservative course. ILL has collected 29 cases, of which 25, or 86 per cent., died; and BENNO-SCHMIDT, of Leipzig, in a paper read at the last Congress of the Association of German Surgeons, and published in the *Centralblatt für Chirurgie*, No. 23, 1883, places the mortality at 80 per cent. Hence, although Billroth, Dittel, Von Bergmann, Julliard, and Reichel favor the formation of an artificial anus, we think the surgeon will be wise who resorts to the operation which we have now considered, provided he imitates the example of Riedel, and also takes care to select sound portions of the gut for resection and suturing. If successful, the recovery is absolute; if it fails, and the patient survives with an artificial anus, or fecal fistule, his condition is not worse than if the operation had not been practised.

THOMSEN'S DISEASE.

UNDER the term *ataxia muscularis*, DR. THOMSEN described a new nervous affection, which consists in the occurrence of muscular spasm at the beginning of a voluntary movement. Prof. Westphal, recognizing the originality of Thomsen's observation, first coupled the discoverer's name with the new affection. Cases have been published by Seeligmüller, Bernhardt, Strümpell, Weichmann, and Mobius, in Germany, and by Ballet and Marie, in France. The phenomena observed in the various cases have been very uniform.

The affection consists essentially in muscular spasm, which comes on as any voluntary movement is attempted, but which disappears on a repetition of the movement. The affection is hereditary, and, as it manifests itself in infancy, is doubtless congenital. In most of the cases, there is a hypertrophic enlargement of the muscles. The cramps are notably increased by fatigue, and when, after a period of repose, the patient again attempts movements.

All the muscles of the body, including those of the eyes and tongue, may be affected. The electric

reaction and the cutaneous and muscular reflexes remain normal, and sensibility is unimpaired. The condition of the muscles is that of exaggerated reaction to the motor impulses or excitations.

The increase in the volume of the muscular masses, the hereditary character of the affection, and the marked predominance of the cases in males, ally this affection with pseudo-hypertrophic paralysis.

UNDERBIDDING FOR STUDENTS.

THE *exposé* by DR. DAVID W. YANDELL, in the February issue of *The American Practitioner*, of the recent proceedings of the Louisville Medical College, is, to say the least, humiliating to those who had commenced to hope that the profession in America was becoming more elevated in tone as it was growing in intelligence. Judging from the practices of some of the professors of this "foremost school in the country," before and after their connection with it, it would seem that association with some medical colleges, at least, is as demoralizing as horse-trading. We have ourselves seen one of the letters offering to take students on the so-called "beneficiary" reduction-rate basis, which have been published by Dr. Yandell. It was sent to a student of medicine, and offered largely reduced rates, and urged the claims of the Louisville Medical College and of Louisville, "the medical centre of the South and West, the healthiest large city in America; beyond the reach of yellow fever," etc.

We sincerely trust that some efficient remedy for such degrading and disgraceful practices, "hurtful to the best interests of medical teaching, medical men, and medical students," shall be speedily discovered. Till then, the best that can be done is to expose such practices to public gaze and public scorn, and the thanks of the profession are due Dr. Yandell for the fearless performance of this unpleasant duty.

In this connection it seems pertinent to reflect on the results of gratuitous instruction at colleges in general, and especially at medical colleges. The general effect of indiscriminate disbursement of free scholarships is baneful in inviting to the study of medicine those who are utterly unfit for it, by reason of their want of the requisite preliminary education. Such opportunities should always be limited, and they should be awarded only upon competitive examination, which does not exclude the deserving and energetic, while it eliminates a large number of utterly unsuitable applicants.

We, therefore, note with regret a circular issued by the University of Minnesota, in which it is stated that tuition is absolutely free, and that the Medical Faculty constitutes an examining and licensing body. At present no instruction is offered, but the

degrees in medicine of the University are conferred upon all persons who pass the examination.

A propos of the above, and showing that the profession itself is not responsible for these degrading practices, and the resulting low standard of medical education, we take pleasure in calling attention to a circular issued by the Medical Society of Trumbull County, Ohio, containing a schedule of subjects for a preliminary examination, to be hereafter exacted of those who propose to study medicine under the tuition of members of the Society.

A schedule adopted early in 1882 has been amended to secure uniformity with that adopted by the Medical Society of the State of Pennsylvania in June, 1883. The Society recommends that the period of study required be five years, and that its members shall require their students to attend only such medical colleges as either require an examination for admission similar to the above or make the full three years' graded course obligatory.

Such influences as these cannot be without their effect, and it is to be hoped that the leaven thus introduced will so rapidly extend itself as to more than counteract the opposite influence.

SOME RECENT SURGERY OF THE STOMACH.

SINCE the appearance, in the editorial columns of *THE MEDICAL NEWS* for November 24, 1883, of a critical inquiry into the merits of resection of the pylorus, several new cases have been recorded, which sustain the view expressed at that time—that it should not be performed, at any rate, for carcinoma.

In the *Correspondenzenblatt für Schweizer Aerzte*, for Nov. 1883, may be found three cases of operation for carcinoma by KOCHER, of which two died within twenty-four hours, and one was living twenty-four days subsequently. Another fatal result in four hours is reported by MAURER, in the *Archiv für Klinische Chirurgie*, Bd. xxx. Heft 1, 1884, and he informs us that the case of Czerny, which was living at the expiration of ten months, when we referred to it, expired, eight months subsequently, with local recurrence.

Maurer also gives the details of a case of ulcer of the stomach, in which Czerny resorted to a new procedure, which possesses manifest advantages over pylorotomy. Instead of making an ordinary resection, and attaching the duodenum to the stomach, he opened the latter transversely to its long axis, by an incision carried through the lesser curvature, scraped away the greater portion of the ulcerated surface, and covered in the defect with twenty-six stitches inserted through the mucous membrane, and, finally, removed the remainder of the ulcer by ex-

cision of an elliptical portion of the entire thickness of the stomach, which was closed in the usual way. The man made a rapid recovery, and had gained twenty pounds in weight at the expiration of three months.

STATE APPROPRIATION TO MEDICAL SCHOOLS.

THE Bill brought before the General Assembly of Virginia, providing for a State Board of Examiners, and which has now become a law, was noticed in a late issue of THE MEDICAL NEWS.

The Assembly has now before it a bill appropriating \$7500, annually, to the Medical College of Virginia, situated in Richmond, and providing,

"That there shall be admitted to the Medical College of Virginia, while this amount is paid, free from all charge for tuition, . . . as many students, who are citizens of Virginia, as there are members of the General Assembly, each member of which is hereby empowered to nominate, in each year, from his county or district, a student to the faculty of the said college, who may prescribe the academic qualifications of the nominee."

As regards the bill it may be said, in the first place, that the clause just quoted is as ambiguous as it is bad. The "who," in "who may prescribe," may refer either to the faculty or to the nominating member. In the latter case, it is especially bad, since the member might send a student whose educational advantages had been *nil*, and compel the faculty to receive him.

Again, the bill is bad, because a Legislature has no right to appropriate public money to give a citizen a professional education. If the medical student receives State aid, why not the law student, and those entering other professions.

Public policy has emphatically declared that "public education can only be justified on the ground that the citizen, by being taught the elements of education, is thereby better fitted to discharge his duties to society as a citizen in those functions which are common to all citizens. This reason utterly fails to apply to professions and professional education. They are *special* and *individual*, and, therefore, outside of the reason which vindicates public school instruction for the masses." No one, by reason of his influence with a politician, has a right to be furnished with a business at the public expense. It would be misappropriation of public money, and therefore unjust. Moreover, such an appropriation of public money to one institution is unjust and injurious to other institutions in the State, and on this ground should not be permitted.

THE EXCLUSION OF AMERICAN PORK FROM THE GERMAN EMPIRE.

WE call especial attention to the important facts contained in the report to the Surgeon-General made by Assistant Surgeon Pope, which appears

in another column. The entire exemption from trichinosis of the American soldiers in the United States Army, though the American hog is a conspicuous part of their diet, shows very clearly that, to prevent the disease in Germany, lessons in cooking are more needed than exclusion of American pork.

If Charles Lamb is to be believed, the Chinese for seventy thousand ages ate their meat raw, clawing it or biting it from the living animal, and then only accidentally learned how delicious roast pig was. If Germans will eat their pork half-cooked they are little in advance of this ancient practice of the people of Confucius, and need to be taught, by the conflagration of a few pigsties, as the Chinese were, or by the burning of their butcher shops, the excellence of properly cooked pork. The protection that this cooking gives the eater will need no other enforcement.

In striking and favorable contrast with the action of the German authorities is the conduct of the French Government. The latter referred the question of the introduction into France of American pork to the Academy of Medicine of Paris; the Academy appointed a Commission to consider the subject, and on the 22d of last January this Commission made its report, and its conclusion is, that as no case of trichinosis has been ascertained to have occurred in France or in England from the use of salted American pork, its importation can be authorized in France.

WE invite the attention of our readers to an excellent paper "On the Artificial Culture of Disease Germs, and what it Teaches," read by DR. D. E. SALMON, of the Agricultural Department, Washington, before the Brooklyn Pathological Society, and published in its *Proceedings* for January, 1884. Dr. Salmon presents fully and clearly the difficulties in the way of such culture, the methods by which they are overcome, and the import of the results.

Dr. Salmon has also published a short paper in *Science* for February 8, 1884, in which he sustains very conclusively the claims of Dr. Klein, of London, as the discoverer, as far back as 1876, of the micrococcus of the swine plague, or pig cholera, although he failed to recognize its importance, and even afterwards pointed out a bacillus as the cause of the cholera, which seems now to be generally acknowledged to have been an error. Dr. Salmon himself was the first to demonstrate by satisfactory methods that this micrococcus exists in the blood during life; that it can be cultivated in flasks; and that the sixth successive cultivation, made with considerable quantities of liquid, and which contained no other organism than micrococcus, still produced the disease. He disproves the correctness

of the statement by Pasteur, in a communication to the Paris Academy, November 26, 1883, that Prof. Detmers, of Chicago, was the first to discover the microbe.

We note with pleasure that our contemporary, *The New York Medical Journal*, shows signs of becoming disgusted with the working of the New Code. The dissatisfaction expressed by the Homœopathic State Society in not being given equal representation in the proposed State Examining Board leads it, in its last issue, significantly to declare that, "it ought now to be plain that there is nothing to be gained by attempts to propitiate the sects."

SPECIAL ARTICLE.

TRICHINOSIS IN THE ARMY.

THE following report of ASSISTANT SURGEON POPE of the United States Army, to the Surgeon-General, is of considerable interest in connection with the present animated discussion growing out of the exclusion of American pork from the German Empire:

"The appearance of frequent epidemics of *trichiniasis*, not only among the civil population of that nation, but also among its troops, who might be supposed to be guarded with particular care from all infected food supplies, is well established.

"From the published returns of the Royal Prussian Army for seven years, from 1874 to 1881, I have been able to compile the accompanying table, which exhibits 445 cases of *trichiniasis*, with 15 deaths, in an aggregate of 1,408,273 cases of disease from all causes, and 8312 deaths; the average strength of the forces for that period being 326,608, officers and men.

Royal Prussian (German) Army.

Year.	Mean Strength.	All Causes.		Trichiniasis.		Remarks.
		Diseases.	Deaths.	Cases.	Deaths.	
1874-75	311,609	223,033	1285	103	1	
1875-76	327,254	220,670	1462	65	2	
1876-77	330,646	194,924	1219	28		
1877-78	327,271	198,853	1113	140	12	{ 107 cases reported from the VIII. Army Corps alone.
1878-79	327,298	187,243	1093	17		
1879-80	330,430	190,444	1067	49	..	{ 47 in the Guard Corps in Berlin. 17 cases in the II. Army Corps.
1880-81	331,747	193,306	1073	43	..	
Total.	2,286,255	1,408,473	8312	445	15	
Yearly Average.	326,608	201,210	1187	64	2	

"In marked contrast to this condition of affairs, although trichinous poisoning has from time to time been reported among the civil population of the United States, American troops show singular exemption. A very careful examination has been made of the returns received at the office of the Surgeon-General for a period of eighteen years subsequent to June 30, 1866. These returns exhibit the fact that there have been treated 910,367 cases of disease from all causes, with 7191 deaths, in an average force of 29,171 officers and enlisted men, without a single case of *trichiniasis* appearing.

"A further examination of disease and mortality returns for the five years of war from 1861 to 1866 was made, and a grand aggregate of 6,029,564 cases of disease, with 156,885 deaths, was shown in an average force of 532,198 officers and men, without a case of *trichiniasis*.

"Prior to the year 1865, it is not impossible that cases of *trichiniasis* may have occurred among American troops and escaped attention, but since that date this singular disease has taken so prominent a place in medical thought and medical literature, that it is difficult to believe that any number could have occurred without detection by officers of the Medical Department of the United States Army.

"In partial explanation of this remarkable immunity, it may here be stated that the use of fresh pork in any shape is not common among American troops, since by reason of their enforced isolation, either at frontier stations or in garrisons remote from village or city life, they are precluded from over-indulgence in that particular.

"At some favored posts, the carefully tended company-pig is slaughtered for Thanksgiving or Christmas dinner; but it is always thoroughly cooked, and lasts but a short time.

"While, as stated, fresh pork is rarely used, the American hog, in the form of bacon and ham, has always been an important article of diet; three-sevenths of the meat-ration, which by law consists of twenty ounces of fresh beef or twelve ounces of pork per diem, being the usual allowance of the soldier at permanent military stations. To troops in the field, or on the march, the whole meat-ration is issued in bacon and in bulk. As used, the pork is usually thoroughly cooked; but emergencies often arise where it can be eaten only in the raw state, and in connection with hard bread, which is another component of the field ration; but, whether cooked or raw, were trichinous poisoning to occur, it must appear as an epidemic that would inevitably attract attention, and cause immediate report; and its non-existence upon the health returns is believed to be good evidence of its non-existence in the Army.

"Prussian troops, on the contrary, are stationed in thickly populated communities, are often quartered upon the inhabitants, and live in the utmost intimacy with them. At Berlin, where the Guard Corps is stationed, forty-four cases of *trichiniasis* were reported in 1879, all of them arising from meat furnished by one butcher. At Spandau, during the same year. *Schlackwurst* (a sausage composed of fresh pork, mixed with chopped veal, and

parboiled) was responsible for the epidemic among the troops.

"In whatever place stationed, the German soldier has at all times free access to innumerable cheap eating houses, where half-cooked or parboiled fresh pork, sausage, pig's-blood puddings, rye loaves, and thin beer, form staple articles of diet; and here it is that the German, whether civilian or soldier, poisons himself wholesale with trichinous pork.

"Could it be reasonably established, that the American hog was even to a moderate degree, the vehicle for transmission of *trichina spiralis* to German stomachs, an anomalous and contrary condition of affairs would surely be shown by the foregoing statistics; namely, that the German soldier at home, though carefully guarded by the rigor of 1800 Royal Sanitary Inspectors stationed through the Empire, to protect him from the dreadful scourge, contracts *trichiniasis* from alleged American pork, while his German brother abroad serving in the American Army, and fed a liberal daily allowance of genuine American pork, escapes without a pang.

"The weight of evidence is certainly against the supposition that the American hog is responsible for the existence of the *trichina spiralis* in Germany, and it may safely be predicted that even if he be successfully excluded from that country by vigorous prohibitions, *trichiniasis*—a disease unknown in the American Army, of rare occurrence on American soil, almost unknown in England (in fact, not mentioned as a cause of death upon the returns of the Registrar-General)—will continue to exist in the future, as in the past, so long as German hogs, whether bearing American labels or not, are eaten in German ways."

REVIEWS.

THE DISSECTOR'S MANUAL. By W. BRUCE CLARKE, M.A., M.B., etc., and CHARLES BARRETT LOCKWOOD, F.R.C.S., etc. 16mo. pp. viii. 390. Philadelphia: Henry C. Lea's Son & Co.

THIS is another excellent member of the set of manuals for students, of which we have already noticed several volumes. The authors are men of practical experience in teaching anatomy, and have the ability—which does not always accompany this—of communicating to others in pleasant and agreeable shape the lessons they themselves have learned. As a consequence, the suggestions of the book before us are of a kind which may be well commended to the student of anatomy as a help to him in his dissections. The large number of pages in the book make room for a good deal of material which is generally, or used to be—for there is already a great improvement in this respect—left to works specifically devoted to what is called regional or surgical anatomy. This is a part of anatomical study which cannot be begun too soon. It teaches anatomy and surgery at once, and the learning of each helps to fix the other in the memory.

The illustrations of this book are very good. If we have any fault to find, it is with the glossary, which is

in some points ludicrously elementary and in others obscure. There are also some awkward expressions to be found here and there. But, with the exception of these minor defects, we find the book singularly free from anything to criticise adversely. On the other hand, it abounds in practical and suggestive ideas, and can be recommended not only to the student, but also to the practitioner. Its compact form and succinct style make it just the thing for busy men.

LESSONS ON THE HUMAN BODY; AN ELEMENTARY TREATISE UPON PHYSIOLOGY, HYGIENE, AND THE EFFECTS OF STIMULANTS AND NARCOTICS ON THE HUMAN SYSTEM. By ORESTES M. BRAND, Principal of Grammar and Primary School No. 4, Paterson, N. J. 8vo. pp. xii. 227. Boston and New York: Leach, Shewell & Sanborn.

THE publishers of this book, with commendable prudence, have allowed Mr. Brand to copyright the book in his own name. We say with commendable prudence, for if the book be sold on its merits, and not foisted upon ignorant or careless school committees by interested partisans, it will fall flat.

It would seem that Mr. Brand is not a doctor, and hence submitted the latter part of his MS. (on alcohol and tobacco) to Dr. Albert Day, of the Washingtonian Home, Boston. Would that Dr. Day had seen also the remainder of the MS. *Ne sutor ultra crepidam*.

This part on alcohol is the best of the book, but it is poor and weak and not seldom incorrect. Thus (p. 181) some of the blood corpuscles under the influence of alcohol, it is stated, "throw out matter, which floats about in the fluid portion of the blood;" and the "loss of strength in the corpuscles [due to alcohol] is indicated by black specks of fatty matter, which in all cases of disorder in the blood are found in great numbers." Moreover (p. 184), the alcohol so hardens the brain, that the doctors often can dissect it without further hardening; and when sudden death occurs from drinking, it is "by the rapid massing of alcohol in the brain."

But in the earlier part of the work are found the worst errors. It would be no great matter if Mr. Brand, Principal of a grammar school, did not know exactly what cataract is, but when he publishes a text-book, albeit for elementary schools, and announces cataract as "a thick, milky matter spread over the cornea," and that the remedy is to "cut away a portion of the cornea," (!) it then becomes a matter of public importance. Even in so simple a matter as the position of the eye, he seems to have a happy faculty of blundering. "The eye is situated . . . in hollows of the bones." How many hollows forsooth?

We can only gather up here and there a few of the many blunders as specimens. The inferior dental nerve "finally supplies the muscles of expression." Fig. 23 represents "the cranial nerves" as three branches of one trunk, which arises in the cerebellum. In fact, except one or two, most of the figures are execrable, both anatomically and artistically. The cornua of the thyroid cartilage are represented as "other cartilages" of the larynx, and the "Adam's apple" is represented in the middle of the lateral aspect of the thyroid cartilage by spots which can only be intended for the core and seeds

of that fatal fruit. Fig. 1 represents the lumbar spine as convex posteriorly, and the splenic curvature of the colon is marked (Fig. 19) as the "greater curvature of the stomach." On page twelve, we learn that the pelvis has four bones, and on page eighteen that it has but three. The madder experiment on the growth of bones, is most confusedly told, and "proves," so our sapient author says, that the bones "grow from the surface toward the center."

One would suppose that Mr. Brand, even if he did not know sufficient anatomy and physiology for a "grammar and primary school," should know a bit of Latin. But among his etymological brackets, we note *capilla* a hair, *tri* three, *motum* to move, *fermentum* to boil, *femoris* the thigh, *choroides* fleecy, and several more such.

But we must leave this little book and we do so with pleasure, in quoting one sentence (p. 101) we can all say amen to. "Indeed"—observe the delicious naïveté of the author's diction!—"Indeed, it may be safely asserted that carbonic acid gas when undiluted CANNOT BE BREATHED!" Quite so! Quite so!

SOCIETY PROCEEDINGS.

NEW YORK SURGICAL SOCIETY.

Stated Meeting, February 26, 1884.

THE PRESIDENT, R. F. WEIR, M.D., IN THE CHAIR.

DR. A. G. GERSTER presented a patient who showed the result of three plastic operations for

RODENT ULCER.

A woman thirty-four years of age, married, presented herself to him about one year ago with a flat epithelioma, or what the older writers called rodent ulcer, on the left cheek. The disfigurement was very great. The size of the deeply depressed ulcer was about that of a silver half dollar, the main body of which occupied the region of the masseter muscle, and there was pseudo-ankylosis of the lower jaw due to scirrhus contraction of the new growth. Dr. Gerster proposed to remove the ulcer, and made a good prognosis so far as relapse of the disease was concerned, basing it principally upon the fact that none of the adjacent glands were affected. The patient, however, did not consent to be operated upon at that time. She returned in September last, with the ulcer twice as large as it was when he first saw her. Perforation into the oral cavity had taken place in the middle of the ulcer, and there was a continuous oozing of saliva from the opening. She then consented to submit to the operation, and on the 27th of September, 1883, he removed the entire cheek, together with a portion of the horizontal part and the angle of the lower jaw on the left side, commencing at about two inches from the median line, and also a small portion of the alveolar process of the superior maxilla. When the operation was finished the tongue could be seen for its entire length, and also the jaw which remained. He did not make an effort to close the wide opening by a plastic operation at that time, but waited until cicatricial contraction should diminish the size of this enormous defect to such an extent that a plastic operation

could be performed, the object of which would be twofold; first, to form a new cheek, and second to prevent the recurrence of ankylosis of the lower jaw, which would have necessarily followed, in consequence of cicatricial contraction, had no plastic material been interposed between the two edges of the wound.

In order to accomplish this he was obliged to follow a plan which was not original with himself. The only case in which the method had been adopted, as far as he could ascertain, was one reported by Gussenbauer, in Langenbeck's *Archiv*, who performed a similar operation on both cheeks, the operation being rendered necessary by noma. Dr. Gerster followed the same plan substantially in his case. The first indication, then, was to give the oral cavity a lining. On the 25th of October, therefore, he raised a tongue-like flap from the temporal region an inch and three-quarters wide and three inches long. It was turned into the defect so as to present the epidermal surface toward the oral cavity. None of the mucous lining of the cheek could be saved at the first operation. There were, therefore, no soft parts remaining to which this flap could be attached, and consequently he drilled three holes in the alveolar process of the lower jaw and four in the alveolar process of the upper jaw, and to these the flap was attached by silver sutures. Primary union ensued, and a little more than four weeks later he proceeded to cover up the granulating surface corresponding to the lining of the oral cavity. To do this he raised a flap from the neck and turned it up into the space, and fastened it with a number of silver wire sutures. This flap at its apex necrosed for a short distance, because of the inequalities of the surface and lack of precise adjustment throughout its entire extent.

Dr. Gerster presented this patient because the case was not yet completed, as there is still one deformity to be corrected, namely, the angle of the mouth is drawn to the left side, and when that correction shall have been made he will present the patient again to the Society. At present she is able to open the mouth widely, and her ability to do so is improving from day to day.

OSTEOTOMY FOR GENU VALGUM—MCEWEN'S METHOD.

DR. C. T. POORE presented a patient, a girl three and a half years old, upon whom he had performed osteotomy on the right leg. The operation was performed three or four months ago, and was resorted to because he was unable to correct the deformity by means of mechanical appliances, the external lateral ligament becoming relaxed. It was the youngest patient upon whom he had ever performed the operation, and the correction was perfect.

DR. F. LANGE then made some

REMARKS ON EXCISION OF THE ANKLE-JOINT WITH SPECIAL REFERENCE TO TECHNIQUE AND AFTER-TREATMENT.

I am going to present six patients, for whom I have excised the ankle-joint more or less extensively within the last two years. In five of these cases the operation was done for scrofulous disease. The patients were, at the time of the operation, from one and a half to nine years old. In one case a gunshot-injury gave the indication. The patient is eighteen years old. I shall

not discuss the question, how far excision of an ankle-joint for scrofulous disease is indicated. Certainly a great difference of opinion exists regarding this point. A number of surgeons, especially in England and America, are in favor of expectant treatment. During six years of living in New York, I have not seen a single excision of the ankle-joint except one, which, strictly taken, was no excision, nor have I heard of one, and I am perfectly aware that in children a great deal can be achieved by mere expectant treatment. On the other hand, I hope to prove by my cases, that very good results can be reached by excision; that the course of the disease in some cases is undoubtedly shortened by years; and in some that it may have saved the limb. The prejudice prevailing against excision is mostly based, I believe, on deficient knowledge of good after-treatment, and, to some degree, of the technique of operation. To these two points I shall principally direct your attention. Regarding the operative procedure, I do not offer anything new. The genius of Langenbeck has presented a method, which, in spite of all new and more or less sensational modifications, is by far the best in every respect. It causes the least injury, gives the best guarantee for new formation of bone, if that can reasonably be expected, and allows of sufficient observation of the field of operation. To make the operation still more strictly subperiosteal, I remove the periosteum, by means of a chisel, in all those places where ligaments or tendons are attached. In small children, in whom the epiphysis is mostly cartilaginous, free use can be made of the knife. The bones are removed by means of a sharp chisel also; eventually a cross-cut is made through the periosteum of the tibia below the line of intended separation, to obviate tension and allow of free access for the chisel. In this way, also, superfluous denudation of the bone is avoided. The chisel must be sharp and thin, and form, by means of numerous small cuts, a smooth perpendicular surface on the cross-cut of the bone remaining. I always unite the periosteum cylinders by a few catgut sutures. In all cases the fibula has been excised also.

In the traumatic case, the astragalus was left untouched; in one case only its articular surface has been removed; in all the other cases it has been removed entirely. In one case, complete evidement of the os calcis was added. I need not say that antiseptic principles, with the permanent antiseptic dressing, were used in the wound-treatment. The limb is suspended by a long anterior plaster-of-Paris splint, according to Beely, into which iron rings are fastened. It reaches as far as the middle of the thigh, and keeps the knee in a somewhat flexed position. Great care must be taken during the dressing to keep the foot in such a way that it is not too much pulled forward. The assistant who holds the foot is very liable to commit this blunder. In this way the axis of the bones of the leg falls behind the intended point of the new joint, and you will see in some of my cases that I have not been able entirely to overcome this defect. In cases in which the whole astragalus has been removed, there might not result any disadvantage, because the bones of the leg are then supported by a part of the os calcis, which is lying more toward the middle line of the foot, and transfers more of the weight of the body upon the heel. In this way, I presume, the formation of pes valgus later on is avoided

with more certainty. When, however, the astragalus is left, the correct relation of the axis of the leg must be strictly observed. During the wound dressing it is well to support the thigh on the calf, and to advise the person who holds the foot to fix it by gentle manipulation and slight extension, rather than to elevate the limb. After the wounds are healed, which can be achieved eventually under a few dressings—within, let us say, from six to eight weeks (in some of our cases it was four weeks; in one, the most extensive, the wound is not entirely healed after almost five months)—the patient gets a light dressing of pasteboard and starch bandage, or silicate, with quite thin wooden splints interposed. This dressing goes upward to the middle third of the thigh, and reaches down to the toes, keeping the knee slightly bent. It is split anteriorly and can be removed and reapplied by means of straps and buckles. I should advise cutting out the region of the heel to such an extent that, for reasons mentioned above, the foot can be slightly pushed backward within the dressing. I apply this dressing up to above the knee, in order to avoid rotation of the leg within the dressing. Now comes a very important stage of the after-treatment, during which, by means of active and passive movements, electricity, and bathing, the muscular action is stimulated. For this purpose, the dressing is often removed and the muscles exercised while the patient is in a lying posture, the limb being raised as much as possible. By and by, the child is made to push away a hand, which offers a slight resistance. In this way the young parts are accustomed to pressure, and after some weeks they will be so far advanced that, with the dressing—which must fit very accurately, and only allow a slight weight to be thrown upon the foot—the patient may commence to walk. The parents should be impressed with the importance of devoting all their attention to these exercises.

After several weeks more (in four of my cases about two months after the operation) the patient gets a good-fitting, double splint, which is inserted in a strong-laced shoe, and allows of a movement of about twenty degrees in the region of the ankle-joint, and reaches as high as the condyles of the tibia. Here it ends in two lateral side-pieces, which form the upper part of a pretty strong leather cylinder. The latter must be adapted very well to the upper half of the leg, as far down as the lower edge of the calf. If the patient has sufficient means, it is well to furnish every lateral splint with a mechanism by which the distance between the condyles and the sole can be increased. This can be used very well to correct abnormal pronation or supination. To improve an abnormal dislocation of the foot forward, pass an elastic ribbon across the lateral steel splints, which press slightly against the posterior circumference of the lower end of the tibia and fibula.

These apparatus will probably have to be worn for years. So far I have not deemed it advisable to remove the splint in any one of the children, though in one the operation was done almost two years ago. Four of these children run about all day, and one would hardly suppose that they had undergone such extensive operations.

I will pass around with each one of the patients a schematic sketch, illustrating the extent of the operation and principal seat of the disease. Also the specimens, as far as I deemed them worthy of preservation.

Case I.—Boy, now three and three-quarter years old, suffered from the ninth month of his age. Came under my care when not quite two years old, with scrofulous disease of the ankle-joint from osteitis of the lower end of the diaphysis of the tibia. Total excision, including the astragalus, on April 28, 1882. Extensive scrofulous cavity in lower end of tibia, which had to be removed. The scar above the new-formed tibia is now ten cm. (4 inches) long. The amount of bone removed was less, but certainly the operation was very extensive. Saw the patient for about ten days, after which time I put him under the care of my friend Dr. A. Büchler, on account of my going to Europe. Wounds healed after two months. After-treatment in the manner described. Splendid new formation of lower end of tibia and fibula. Malleoli well developed. Astragalus apparently replaced by a flat crescentic-shaped body. Slight pes valgus, for which inner side of sole had to be raised. Functional result very good. Shortening at present about two cm. ($\frac{2}{3}$ inch).

Case II.—Boy, nine years old. Came under my care four years ago with fistula above the malleolus internus, leading to scrofulous bone cavity in lower part of diaphysis, which was scraped out and healed after transient attack of inflammation in the ankle-joint. Was apparently quite well, without complaining about anything, for almost a year and a half, when slight fungoid swelling of the joint showed itself. Being absent from New York I did not see him until five months later, when the swelling had much increased, abscess had formed, and the limb was quite useless.

In October, 1882, total excision of ankle-joint, including the astragalus. Speedy recovery. Very little new formation of bone; some abnormal lateral mobility; considerable shortening of about four cm. ($1\frac{3}{4}$ inch). The femur of the affected side is also one and a half cm. ($\frac{3}{4}$ inch) shorter than that of the other. Functional result good. Boy runs about all day wearing high-heeled shoe and double steel splint. The specimen shows very beautifully the progress of the disease from the original seat of disease through the bone substance of the epiphysis to the astragalus, which shows the most destruction at a point opposite the canal which leads through the epiphysis of the tibia.

Case III.—Boy, nine years old. Had trouble with his right ankle-joint since his second year. Often repeated inflammations; later on several abscesses; transient, apparent recovery, with some pain and impaired use of limb remaining. Came under my care September 30, 1883, with abscess behind internal malleolus, which was opened, when caries of the joint was ascertained, for which excision was done on the 9th of October. From the astragalus only the articular part was removed by means of a broad, sharp chisel. Six weeks after the operation wounds completely healed. On the 2d of December shortening about three cm. ($1\frac{1}{4}$ inch). Little new formation of bone; slight lateral mobility. Malleoli narrow and axis of leg a little behind its normal insertion on the astragalus. Patient walks safely with or without brace. The excised portion of the tibia showed very deep, irregular depressions, some of which, at the line of the operation, were filled with organized tissue, while others presented a bare, carious surface.

Case IV.—Girl, six years of age. For three years slight limping and here and there pain, but foot always

used until one week previous to my seeing her, when she presented thickening of lower end of tibia and inflammation of ankle-joint. September 1, 1883, complete excision, including astragalus; excellent new formation of bone and functional results. One interesting point was that seven weeks after the operation, when the patient had not walked yet, a shortening was made out of one and three-quarters cm. ($\frac{7}{8}$ inch). Three weeks later a shortening was made out of three cm. ($1\frac{1}{4}$ inch). Perhaps it would have been better to have delayed the walking exercises. The tibia is now one and a half cm. ($\frac{3}{4}$ inch) shorter than that of the opposite side. The new joint is quite firm and reliable, in spite of slight forward displacement of foot. The principal seat of the disease was a supra-epiphyseal scrofulous osteitis in the tibia.

Case V.—Boy, three years old. Commenced to suffer when nine months old. Extensive scrofulous osteitis of os calcaneum and lower end of tibia, involving the interposed joints and bones. Evident of os calcis, complete excision of ankle-joint including the whole astragalus. In the os calcis and tibia scrofulous sequestra were found, which you see here.

Patient still under treatment, because the granulations repeatedly showed a fungoid character, and had to be scraped out. The patient commences now to walk in his starch dressing. I expect a good result ultimately, because a good new formation of bone is going on. Patient's mother died from consumption, and father is said to be consumptive. I shall present the boy a second time when he is able to walk.

Case VI.—Excision for gunshot injury. A young gentleman, eighteen years of age, tall and slender, from a healthy family, was shot by one of his friends, who was walking behind him, while the muzzle of his gun was at a short distance from the patient's heel. The load was small bird-shot. The contents of the gun entered the space between the posterior median edge of the tibia and the tendo Achillis, about two or three cm. ($\frac{3}{4}$ or $1\frac{1}{4}$ inch) above the internal malleolus, and, passing in a direction outward and forward, completely shattered the lower end of the fibula. The tibia was also broken into numerous fragments, and the tendons of the long flexors were completely torn; the tendo Achillis was partly carried away, while the tendon of the tibialis posticus was preserved. The posterior tibial nerve and artery were likewise not torn; they were lying imbedded in their bloody infiltrated sheath, within which a slight pulsation could be detected. I saw the patient about twenty-four hours after the injury, when several pieces of bone had been removed from the fibula. In spite of the extent of the injury, conservative treatment was tried by excision. Fully ten cm. (4 inches) of the tibia were removed. A large rent existed from the point of injury down to the joint within the lower end of the tibia.

The operation was done in Pine Hill, Ulster County, on August 13th, and the after-treatment for the first ten days was conducted by Dr. Laws, of this city. Then the patient was brought to New York, and I took charge of him. Extensive necrosis of soft parts, and, to some extent, of the periosteum, occurred, so that open antiseptic treatment with thorough drainage was resorted to. Complete cicatrization after five months. From that time, exercise, massage, and electricity. Patient is now able to walk, wearing a double splint with mechanism for ex-

tension, which takes part of its support on the thigh. He has been lately able to walk from one to two miles, but his foot is still weak and he uses a cane. Present shortening fully five cm. (2 inches). I ordered shoe with high heel and sole. New joint about two or three cm. ($\frac{3}{4}$ or 1 $\frac{1}{2}$ inch) above the normal one, at the point where the periosteum was most extensively torn. Muscular action still very weak; profuse perspiration about the foot all the time. I hope that after about a year's duration the patient will offer a very fair result.

DR. L. A. STIMSON said he had recently performed excision of the ankle-joint, and hoped soon to be able to present the patient to the Society. He also hoped that the case would show less lateral mobility than that shown by most of the cases presented by Dr. Lange, for he had preserved the malleoli in part, although removing the astragalus entire. The operation was performed after the method more recently described by Vogt, by making a longitudinal incision beginning about an inch and a half above the articular surface of the tibia and passing downward along the border of the extensor tendons for about three inches, with a short lateral incision from the lower part of this toward the tip of the external malleolus; through this incision the astragalus is easily removed and a very full view of the ankle-joint is obtained. He endeavored in his case to remove all the synovial membrane, with the preservation of the greater part of the two malleoli. It must be said, however, that in his case the disease manifested itself mainly in the synovial membrane, and only slightly in the tibia and fibula. The feature to which Dr. Lange had directed attention, namely, the displacement of the axis of the limb backward upon the foot, appeared also in his case, and he attributed it, as Dr. Lange had done, to the effect produced by pressure upon the heel, bringing the line of the weight of the body upon the foot somewhat posterior to the point where it normally falls.

DR. LANGE thought that perhaps the operation described by Dr. Stimson would be best if the disease involved the astragalus alone, but he thought it might not be possible to see all the parts involved, especially if the disease was situated pretty high up in the tibia; in such cases the longitudinal incision cannot be dispensed with. He also thought the principle to do as little injury and leave the parts in as nearly a normal condition as possible, was what especially commended Langenbeck's operation.

THE PRESIDENT remarked that he had had the opportunity to see two cases in which Busch's method of resection of the ankle was performed by making a transverse incision across the sole of the foot. Each of the different operators said that the method gave an admirable command of the parts. The result in both cases, however, was a permanent non-union of the os calcis, with considerable necrosis of the same; a result which was apprehended might occur.

The President also remarked, that last summer Neuber showed him two or three cases of necrosis of the head of the tibia, in which he had, after the removal of the diseased or dead bone, transplanted a V-shaped flap of skin into the bottom of the cavity and fastened it there by a nail. At the time they were exhibited they were doing admirably. Since then Dr. W. T. Bull had treated, in the New York Hospital, one case of tibial necrosis in the same way.

DR. F. LANGE then described a

NEW METHOD OF TREATING LARGE BONE CAVITIES IN THE LOWER END OF THE FEMUR IN ADULTS.

(See page 295.)

DR. LANGE said that he had tried the same method lately in extensive necrosis of the tibia, but without complete success. Probably for the reason which he had verified repeatedly, that in necrosis, if the operation must necessarily be performed, where there is a good deal of discharge and some infiltration of the tissues, a good deal of suppuration occurs in spite of the use of strict antiseptic precautions. In the case alluded to, he was obliged to operate because the patient, a girl of perhaps five years of age, was losing weight, and gradually a somewhat hectic condition developed in spite of all efforts to build her up for the operation. The discharge was copious before and after the operation, and primary union did not take place. His operation, however, had proved somewhat beneficial, and would probably make recovery more speedy, because the inverted lateral flaps, though not fixed by primary union, had still contributed to diminish the bone cavity. He regarded the condition of the parts where primary union is expected as a very important factor. Infiltrated tissues, secreting pus somewhat freely, continue to discharge freely for some time, though the secreting surface may be removed. Apparently an irritant, lying within the tissues some distance from the wound, and being somewhat active, must first be made to disappear, either by absorption or secretion, from the free surface of the wound.

DR. A. G. GERSTER had resorted to this procedure in two cases. In one, he had to deal with a relapse of a carious affection of the lower part of the diaphysis of the femur. The patient had been operated upon fourteen or fifteen years ago, in Europe, and had been doing well ever since; but recently the disease returned, and an abscess formed, corresponding to the extensive cicatrix which occupied the inner aspect of the thigh. It was incised, and, after the disappearance of the febrile symptoms, Dr. Gerster attacked the disease itself, exposed the bone, and formed as shallow a trough as he could in the lower portion of the diaphysis of the femur. He then loosened up the skin on either side, turned the flaps into the bottom of the cavity, and fastened them in the manner mentioned. The patient had no fever, but the dressings getting soiled he removed them on the twelfth day, and found that to a considerable distance the old cicatricial substance had ulcerated under the influence of the profuse secretion which had taken place from the cavity. Nevertheless the flaps did not recede, as they do in these operations when the cavity is plugged after the old-fashioned way.

In another case Dr. Gerster performed necrotomy upon the head of the tibia, and if he had been able to obtain sufficient skin to reach to the bottom of the cavity, he thought the result would be even more satisfactory than it really was. As it was, the skin flaps were so short that he was obliged to leave uncovered a strip of bone in the median line, about one-third of an inch wide. Primary union took place as far as the cutaneous flaps reached, and there was no doubt that the recovery of the patient was very much hastened by

the procedure. He also noticed that the deep depression of the cicatrix and skin was diminishing, and, finally, is now on a level with the normal surface of the tibia, and that apparently the bottom of this depression gradually filled up with bony substance.

NECROSIS OF THE LOWER JAW, DUE TO PHOSPHORUS POISONING.

DR. J. C. HUTCHISON presented the greater portion of the body of the lower jaw, which he removed from a woman forty-two years of age, who came under his observation about a year ago. She came from Frankford, Herkimer County, where she had been at work in a phosphorus factory, and from which place a number of patients had been received at the Brooklyn City Hospital. She gave the following history: Two years ago she had an ulcerated tooth on the left side of the lower jaw, which was extracted, and at the end of two weeks she returned to her work in the factory. About one year subsequently small pieces of bone began to discharge from the jaw, and she entered the hospital for the purpose of having an operation performed. Circumstances were such that it was impossible for her to remain as long as was desired before operative measures were resorted to. The operation was performed, and the bone exhibited was removed. The patient returned to her home, and Dr. Hutchison heard from her three months subsequently, when she stated that a spicula of bone had come out since her return, and he wrote to her that if she had further trouble, to let him know with reference to it. From the fact that he had not heard from the patient since, he concluded that complete recovery had ensued. He thought the specimen showed that the operation might have been deferred with advantage, if the patient could have consented, and with less loss of bone.

APHASIA FOLLOWING EXTERNAL INJURY OF THE HEAD WITHOUT WOUND OR CONTUSION OF THE SCALP.

DR. H. B. SANDS narrated a case of injury of the head, which to him seemed to be somewhat remarkable. A lady, aged forty-eight, residing in Hartford, Conn., two weeks before his visit, was thrown from a sleigh and probably struck upon her head. She was picked up in an unconscious condition, and on examination soon afterward, the attending physicians were unable to find any signs of external injury of the head, although there were marks of contusion on the neck, and also in the lumbar region. A few hours after the injury consciousness began to return, and vomiting occurred. It was also noticed that the pupil of the right eye was a little larger than that of the left, and was sluggish, although it responded to light.

The singular feature of the case was the existence of aphasia, which, though not extreme, was well marked, and presented the usual characteristics of aphasia resulting from purely pathological causes. Some change in the mental condition of the patient was noticeable, showing itself by a disposition to talk and by an unnatural degree of mirth. When Dr. Sands saw the patient she talked quite rapidly, using tolerably often a wrong word. In reading aloud about one word in every line was not the one she intended to use. She was aware of the infirmity, and became easily fatigued by mental exertion, experiencing pain on the left side of

the head whenever she attempted to carry on a conversation for any length of time. The right hand appeared a little weak.

Dr. Sands was unable to recall a case exactly like the one related, and inquired what had been the experience of the members with regard to the production of aphasia from a blow upon the head. The patient's health is otherwise good, and there is no reason to suppose that any disease existed at the time of the injury. The urine has been examined, and found to be normal.

In endeavoring to account for the condition, the possibility of aphasia occurring simultaneously with the accident, as the result of some cause not traumatic, was taken into consideration. It seemed probable, however, that the lesion was due to the injury, because she presented the usual signs of concussion, and the return of consciousness was accompanied by vomiting. Moreover, examination of the heart failed to discover any valvular disease, and, as already stated, the patient's general health prior to the occurrence of the accident was known to be excellent.

DR. GERSTER mentioned a case in which aphasia took place in consequence of an apoplectic seizure during the healing of a wound made for the removal of cancerous breast, and apparently caused by embolism. The patient was sixty-two years of age. The left breast was amputated and the axillary space evacuated. Antiseptic dressings were applied, the wound was healed on the ninth day, when the patient got up and walked out into an adjoining room, lost her consciousness, and fell. She was picked up, put into bed, and when he saw her on the following morning she was unable to talk. There was hemiplegia, which disappeared during the course of the next two weeks. Deflection of the tongue and inequality of the pupils were noticed. In the course of three weeks she began to talk again, and the curious feature in the case was that she forgot the German language and spoke only her native tongue, that of Bohemia. She was unable to write, but was able to draw rough outlines of simple objects. She gradually learned certain letters, but was, unable to write all letters. It was therefore a case of agraphia complicating aphasia. Recovery was gradual, and finally was so complete that she was again able to speak in German.

Her circulation was very poor, and three days before the apoplectic seizure Dr. Gerster found evidence of hypostatic congestion of the lungs. Whether this partial solidification of the lung was due to transmission of a clot from the wound into the lung, and infarction of the lung followed, from which an embolus was detached and carried into the circulation and produced the hemiplegia, he was unable to say. It seemed, however, to be in direct connection with the operation. Also whether the fall was from the apoplexy, or whether the fall produced the apoplexy, he was unable to determine positively.

DR. HALSTED remarked that the hemiplegia in Dr. Gerster's case could be explained without supposing the formation of infarction, and on the ground of the free anastomosis which had been demonstrated to exist in the lungs; so free that emboli may be carried directly through the lungs into the brain independent of the formation of an infarction.

DR. POST referred to a case under treatment many years ago in the New York Hospital, that of a Swedish

sailor boy, who received a concussion of the brain, and while suffering from the cerebral disturbance forgot his English entirely, and was able to speak his native language only.

DR. LANGE referred to a case of disturbance in the use of language after an injury to the temporal region caused by the hoof of a horse. The man showed no deficiencies with reference to the number of words, but rather in using them intelligently. He answered questions very quickly, and words seemed to occur to him more than he needed. The case was not a recent one. A number of weeks elapsed after the injury before an operation was performed, and a large number of pieces of bone were removed, but without giving any permanent benefit. At times the patient was restless, and had to be watched and partially restrained. There were no paralytic symptoms. Finally he was discharged, uncured.

THE NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 6, 1884.

THE PRESIDENT, FORDYCE BARKER, M.D., LL.D.,
IN THE CHAIR.

AFTER the reading of the minutes and a report from the Section on Obstetrics, through its Secretary, Dr. Alexander Hunter, the Secretary read three communications from the Council. The first contained a report from

THE LIBRARY COMMITTEE,

in which it was stated that the volumes sent out in exchange numbered 112, while those received numbered 254, an excess of 142 volumes received.

THE PRESIDENT, in commenting on this report, remarked that it showed that if the system of exchanges was to be maintained, it would be necessary that the Academy should give more attention to the publication of its proceedings than it had done of late.

The second communication from the Council was in reference to

THE PROMPT PUBLICATION OF PAPERS,

and recommended the passage of a resolution to the effect that every paper read before the Academy should be presented to the Council, and on the approval of the latter should be immediately published at the expense of the Academy.

THE PRESIDENT suggested that those who read papers should publish only abstracts of them in the medical journals, as was the custom in Europe, reserving the full text for publication by the Academy. The object of the resolution was to insure their prompt publication, while at the same time the papers would reappear at the end of the year in the volume of *Transactions*. Still, it was not the design that there should be any compulsion in the matter, and any Fellow reading a paper could have the option of giving it to the profession through the journals, or of having it published by the Academy. The resolution was adopted.

A BENEFACTOR OF THE ACADEMY.

The third communication from the Council was in reference to a letter from Dr. Horace P. Farnham, ex-Treasurer of the Academy, in which he suggested, on account of the mortgage still remaining on the building

of the Society, that those Fellows who intended to make bequests to it in their wills, should present the sums contemplated now instead, and with which he inclosed his own check for \$1000. The Council recommended that, in consequence of this liberal gift, the name of Dr. Farnham should be enrolled among the Benefactors of the Academy.

On motion, the recommendation was adopted, and it was resolved that a vote of thanks be tendered Dr. Farnham, with the notification of his election as a Benefactor.

DR. GEORGE B. FOWLER then read the paper of the evening, illustrated with practical demonstrations, on

THE DETECTION OF ALBUMEN, WITH A REVIEW OF THE METHODS RECENTLY ADVANCED.

After alluding to the various kinds of albumen, he said that they were classified as native and derived, and that the native albumen which chiefly concerned the medical practitioner, was that of the blood, serum albumen. Then having spoken of some of its characteristics, he proceeded to detail a number of methods for precipitating it when present in the urine.

The first that he mentioned was by means of heat, which, he said, caused the formation of a solid clot when the quantity of albumen in solution amounted to nine per cent. Acid albumen and alkali albumen were derived forms of the substance, and neither of them was coagulable by heat. If, however, after the application of heat, a sufficient quantity of alkali in the one case, and acid in the other, were added to render the fluid neutral in its reaction, the albumen would be precipitated. He had found by experiment, that two per cent. was the smallest quantity of albumen that could be detected by heat. In experimenting with this and the other agents afterwards referred to, he had employed urine of a specific gravity of 1022, and he thought that possibly the results might be slightly different with urine of lower specific gravity than this. A point of practical importance in examining for albumen by means of heat, was to see that the urine was neither strongly acid nor strongly alkaline, and it was also always advisable to apply heat before adding acid, except for the purpose of neutralizing the fluid preparatory to making the examination.

Next he referred to the mineral acids, of which, he said, nitric acid afforded the most delicate test. By means of it, .1 per cent. of albumen could be detected. Picric acid had been suggested by Dr. Johnson, of London, and a saturated solution (about seven grains to the ounce of boiling water) was recommended for the purpose. Afterwards it was pointed out by Dr. Ralfe that the method was open to objection, on the ground that the picric acid precipitated peptones when they were present, in addition to the albumen. Dr. Johnson was inclined to doubt the existence of such a thing as peptonuria, because he had never been able to find an instance of it; but in connection with his son, a chemist, he undertook a series of experiments in regard to the matter. They found that when in any solution peptones were precipitated by picric acid, the precipitate was entirely redissolved by the application of heat. When the liquid was allowed to cool, however, the precipitate again appeared; though the addition of nitric acid cleared it up permanently. Subsequently some

one ascertained that if the urates were in excess in any urine tested by picric acid, they would be precipitated; but it was found that this precipitate also disappeared under the application of heat. The same was true as well of quinine, which, as was well known, was sometimes found in appreciable quantities in the urine of those using the drug to any considerable extent. The picric acid test was a very delicate one, detecting the presence of .1 per cent. of albumen; but it was necessary to employ great care in its use. When very minute quantities were to be detected, it was best to employ an equal bulk of the acid, as in Heller's method with nitric acid. By this means a delicate trace of albumen could sometimes be seen at the junction of the two fluids, which might escape observation if the test were used in any other way. One special advantage of the picric acid test was, that it would cause the precipitation of albumen in either a strongly acid or strongly alkaline urine.

Another class of tests in use were certain neutral salts, subsequently acidulated. One of these was the chloride of sodium (acidulated brine) test, suggested by Dr. Roberts, of Manchester. It was quite a good one, but not so delicate as the others, as the smallest amount that he (Dr. Fowler) had been able to detect with it was one per cent. Ferrocyanide of potassium, in connection with citric or acetic acid, he had found a delicate and reliable test, detecting .1 per cent. of albumen; and the same was true of tungstate of soda with an acidulated solution.

Quite recently, Dr. Oliver had introduced another test, which was altogether the most delicate that has yet been employed, viz., potassio-mercuric iodide with an acid, and it was capable of detecting .01 per cent. of albumen. The discovery of this test was not original with Dr. Oliver, but had been made by a French observer. The aim, in many of the later tests devised, had been to secure a method which could be easily practised at the bedside, and this had now been very satisfactorily accomplished by Dr. Oliver in the invention of his test-papers. There were two sets of slips of bibulous paper, one of which had been dipped in a saturated solution of citric acid, and the other in a saturated solution of potassio-mercuric iodide, and then allowed to dry. When the test was to be made, a slip of each kind was placed in a test-tube containing the urine, and as they dissolved, a precipitate would be observed to form in case albumen was present. With this potassio-mercuric iodide test, Dr. Fowler had found that almost every specimen of urine that he had examined contained at least a trace of albumen, or, at all events, some substance precisely similar in its qualities. It was a test, therefore, which could not be employed in life-insurance examinations, because it was certainly a question whether, in the great majority of cases in which he had tried the test, there was any diseased condition present. This was a matter which yet remained to be decided.

THE PRESIDENT made a few remarks in regard to the significance of albumen when found in the urine, and said that he hoped this point would be taken into consideration in the discussion.

DR. E. D. HUDSON said that his interest in the subject was chiefly of a practical nature. While he had watched very carefully the current of medical literature in regard to the employment of new tests for albumen during the

last few years, he was still strongly disposed to adhere to the old methods. The use of heat and nitric acid constituted, in his opinion, the most satisfactory tests for the busy practitioner. But even with these, there was need of the explicit instructions which Dr. Fowler had mentioned, and one very common mistake made, he thought, was the addition of nitric acid before the application of heat. He believed that it was a good rule to ascertain in all instances the chemical reaction of the urine by means of litmus paper before proceeding to test for albumen, and to add sufficient alkali or acid as the case might be, to bring the fluid to as nearly a neutral condition as possible. In cases in which there were any doubtful symptoms, it was a great mistake to dismiss the examination of urine simply because no albumen could be detected. In addition to repeated testing for albumen, repeated microscopic examinations should also be made. Heller's method often served an excellent purpose, and there was another admirable plan, which had been devised by Dr. Reuben A. Vance in 1868 or 1869. This was to take up in a pipette a little urine, and then a little acid, when, if any albumen were present, the precipitate would be seen at the junction of the two strata of fluids. Personally, he often tested simply with heat and ice-water. If, on the application of heat, a precipitate appeared which was caused by phosphates, the latter promptly disappeared when the test-tube was dipped in ice-water, the phosphates, as was well known, being redissolved by cold. In regard to some of the methods described in the paper, there seemed to him to be objections which confirmed him in the opinion that the older ones still continued the best for clinical purposes. Thus, the test-papers referred to, are too delicate, and the picric acid test required too much manipulation in order to secure freedom from errors.

DR. CASPAR GRISWOLD remarked that there were two ways of looking at tests for albumen, one from a chemical standpoint, and the other from a clinical one. From the latter, that method was most desirable which presented the least chance of our mistaking some other precipitate for a deposit of albumen, and *vice versa*. With the picric acid test there were, apparently, a greater number of possible errors to be met with than in the case of most of the others. With regard to the potassio-mercuric iodide test, the question was, Is it desirable to find these very small quantities of albumen in the urine? If this test was a true one, a small quantity of albumen would really seem to be a normal constituent of the urine, and, at all events, albuminuria, in our modern view, was not regarded as such a serious condition as was formerly the case. On the whole, the old tests were probably sufficient for all clinical purposes. Although the application of heat might not detect such a minute quantity of albumen as some of the other tests, he thought it was the most reliable method, under ordinary circumstances, when the urine was clear. He was in the habit of pouring some of the urine to be examined into two tubes. That in one was boiled, while that in the other was not, and then the two were carefully compared; the tubes being always held against a black background. When the urine was not clear, he added one-fourth part liquor potassæ to it; after which he warmed and filtered it. Afterwards he employed Heller's cold nitric acid test. He believed, therefore, that the old

methods are really the best for the detection of albumen that was of clinical significance—if sufficient attention was given to the requisite details. However interesting a test might be in a scientific point of view, if we over-refined it to too great an extent we destroyed its practical value.

PROF. CHARLES A. DOREMUS said that he agreed fully with Dr. Griswold. Clean test-tubes and clear urine aided the medical practitioner more than very refined tests. Most of the urines submitted to examination were so turbid that it was difficult to test for albumen until they had been rendered clear. If Heller's method were employed, however, after treating the urine with an alkali, some degree of disturbance might be caused by the ebullition of a little gas, which would interfere with the delicacy of the test. In such cases, ferrocyanide of potassium and acetic acid were to be applied. This was an exceedingly delicate and satisfactory test; and metaphosphoric acid, which had not been mentioned this evening, was also a reliable one.

DR. MUNN said that he had had a very large experience in testing for albumen in connection with life-insurance examinations, but that he would speak of but a single point, and that was in reference to the very great importance of having a properly shaded light for the observation of the effect of the tests applied. Under ordinary circumstances no foreign bodies were visible in the air, but, as was well known, if a pencil of sunlight was allowed to stream into a room in a certain way, quantities of specks and particles of dust could be seen floating in it. So if the quantity of albumen was small it might entirely escape notice unless the test-tube was placed in the best possible light. The plan which he had adopted was the following: A dark window-shade was drawn down to the bottom of the window, and then held out a short distance from the sill, so as to allow the light to stream beneath it, while the test-tube was placed in front of a piece of black pasteboard fastened against the wall just below the window. By the adoption of this device he had sometimes been able to demonstrate to physicians the presence of albumen in the urine of patients in whose cases the tests made under ordinary light had previously failed to detect it.

DR. MAXWELL, another life-insurance examiner, said that when he first began to test urine for albumen he stuck to the old heat and nitric acid, and then adopted Heller's method in addition. For the last two years, however, he had principally employed picric acid, and recently he had also used sodium tungstate, combined with a small quantity of citric acid. He seldom relied on any one test, but as a rule resorted to three or four different ones in succession. Lately he had noticed in using picric acid in one instance, that a cloudiness was seen, which disappeared on the application of heat. After boiling the urine further, however, and then setting it away for twenty-four hours, the whole bulk became cloudy. Nitric acid and sodium tungstate indicated a small amount of albumen, but his first impression (from the action of the picric acid) was that it was a case of peptonuria. A specimen of this condition, however, he had not yet been able to find. He thought that the clinical significance of these later tests for albumen was not of great importance, since in every case in which any albumen at all was detected, microscopical examination

would always be made for casts, and if they were found to be absent, the albumen would be regarded as of little consequence.

DR. FOWLER said, in conclusion, that the object of the paper had been to elicit such a discussion as that which had been carried on. He agreed with the last speaker, that reliance should never be placed on merely one test, and he usually resorted to the use of heat first himself. He could not agree with Dr. Griswold, however, that there was no use in going into unexplored fields in connection with this subject. A very minute quantity of albumen in the urine was sometimes of considerable clinical significance when the microscope showed the evidences of commencing renal disease. Again, it was only by such methods as those he had mentioned, that it could be ascertained whether a certain amount of albumen was not a normal constituent of the urine, since the minute quantities could not be detected at all by the old methods. In passing, he would state that peptonuria was really a condition sometimes found, and that he himself had seen undoubted examples of it—the appropriate tests showing plainly the presence of peptones.

OBSTETRICAL SOCIETY OF PHILADELPHIA.

Stated Meeting, March 6, 1884.

THE PRESIDENT R. A. CLEEMANN, M.D., IN THE CHAIR.

DR. WM. GOODELL made the following

CORRECTION OF A MISSTATEMENT:

"At the last meeting of this Society, I made a misstatement with regard to that distinguished ovariotomist, Mr. Tait, which I greatly regret, and which I wish here to correct. I was misled by some remarks made by Dr. Sutton at the last meeting of the American Gynecological Society. These were so reported as to convey to my mind the impression that Billroth was the only European operator who did not refuse any case of ovarian tumor, however unpromising it was, and that Mr. Tait—to borrow Dr. Sutton's language—'does not remove many large tumors, those which weigh from sixty to sixty-five pounds, with extensive adhesions, etc.' In quoting this, by a careless slip of the pen, I changed the word 'many' into 'very,' and in addition I wholly misapprehended the purport of the above sentence. Dr. Sutton has since, in THE MEDICAL NEWS, of February 23d, explained that he did not mean that Mr. Tait selects his cases, for he was 'not aware that this British ovariotomist refuses to remove a tumor because it is large,' but that 'Mr. Tait has the largest line of ovary and tube-cases, and the shortest line of big ovarian cysts, of any man I [Dr. Sutton] visited in Europe.' In making this correction here, I wish to repair the injustice which I unwittingly did Mr. Tait before this Society."

DR. GOODELL then exhibited an

EXTRA-OVARIAN CYST,

with the following history: The lady, æt. 28, and the mother of four children, had a miscarriage early in last October. At that time her family physician discovered the tumor. It slowly grew, but gave the lady so much inconvenience from pain and pressure that she was brought to his office late in the following December.

It was not large, but was very sensitive, and was diagnosed to be an ovarian tumor. Both ovaries were removed early last February, and the lady recovered promptly. The peculiarities of the cyst were to him unique. The ovary lay to one side of a thick-walled cyst, and at such a distance from it that the cyst could have been removed without injury to the ovary. The latter was, however, extirpated along with the cyst, because it was diseased. Hitherto, all parovarian cysts which he had encountered were thin-walled and contained a clear fluid. But this one had thick walls and contained a turbid brown fluid. It started from the left broad ligament, and was adherent to the bladder, omentum, and abdominal wall. Another point of interest was the fact that the right ovary had doubled its size from follicular degeneration, and yet pregnancy had taken place.

DR. ROBERT P. HARRIS suggested the possible existence of a third ovary as the starting-point of the tumor. He also thought that the presence of a third ovary might explain the persistence of the menstrual flow in some cases, after the operation of double ovariectomy.

DR. GOODELL also exhibited a

COCYX REMOVED FOR COCCYGODYNIA.

The patient had met with a fall down stairs some years previously, and the injury was followed by a vaginal abscess of some kind. She had all the classical symptoms of a very bad coccygodynia, and had fallen into a nervous condition which bordered on insanity. Dr. Goodell had intended merely to sever the nervous attachments of the coccyx by the sweep of a tenotomy knife, but after the patient had been put under ether, the tip of the bone was found unnaturally movable, and giving distinct crepitation. The loose bone was therefore removed, and as the articulating surfaces were found rough and denuded, the whole coccyx was removed by bone-forceps. Great relief followed this operation.

Although he had seen very many cases of coccygodynia, this was the first case on which he had operated. In a very few traumatic cases he had wished to operate, but was not permitted to do so. The vast majority of these cases are, in his experience, those of nervous or neuralgic coccyx, and they get well in his hands under rest, massage, electricity, and appropriate constitutional treatment. The great difficulty, in cases of severity, is to decide between the nervous mimicry of the disease and pure traumatic coccygodynia, in which positive lesions have been sustained, and their effects have not yet passed away—as, for instance, in a sprained or a fractured coccyx, or in a rheumatic, a gouty, or an inflamed coccyx. There is yet another difficulty in the way of diagnosis, for sometimes an injury received in an hysterical woman is followed by local nervous phenomena, which will last long after the original lesion has been cured. For instance, on one occasion he had been so greatly deceived in the diagnosis between traumatic and nervous coccygodynia as to make him very cautious in resorting to the use of the knife. A highly intellectual lady, who spent her leisure in reading metaphysical works, received an injury to her coccyx by the sudden "bucking" of the horse on which she was mounted. She was at that time suffering from nervous prostration, and the blow started up very exacting coccygeal symp-

toms. Dr. Goodell found retroversion and a prolapse of both ovaries. These dislocations were remedied, and the patient put on a vigorous constitutional treatment; but she grew no better, and an operation was proposed and agreed to. As soon as the day and the hour were decided upon, she lost all pain in her coccyx, and has not since had a return of it. This happened about six years ago. On another occasion, he saw a very obstinate and severe case of coccygodynia, which he had been treating unsuccessfully for a long time, and which had a traumatic history, quickly disappear under an exciting family jar. In view of this experience, he believed it always safer at first to consider coccygodynia as a local expression of a general neurosis, and to treat it accordingly.

DR. J. H. PACKARD asked why Dr. Goodell preferred the bone nippers to disarticulation in the first case.

DR. A. H. SMITH asked if Dr. Goodell had removed the entire coccyx. (Dr. Goodell was not sure, but thought so. There had been an abscess in connection with the injury, and the bone was dead and somewhat necrosed; he had cut off one piece with the nippers and then disarticulated the remainder.) Dr. Smith, continuing, said there had been suppurative action, probably following ankylosis. Such a condition might result from injuries received in labor, or from falling astride a chair-back or a rail. Most cases were reflex hysterical or uterine pains, as may be proved by the freedom from tenderness when the finger is pressed on the coccyx when making a vaginal examination. He has never removed one, because he has seen such poor relief from the operation in the cases that have come under his observation. Why should relief come unless all the nerves and other painful tissues be also removed? He will be glad to hear the result of the operation in the case reported by Dr. Goodell this evening.

CORRESPONDENCE.

COMPENSATION FOR EXPERT TESTIMONY IN IOWA.

To the Editor of THE MEDICAL NEWS.

SIR: In an editorial in THE MEDICAL NEWS of the 1st inst., entitled "Compulsory expert testimony without remuneration," you refer to Iowa as the "only State whose legislature has had the good sense to see that the true interest of the community requires that justice should be done to the medical expert."

I opine that the profession in Iowa would be happy if this were indeed true, but unfortunately it is not as relates to the present situation in this State. A later legislature has passed a later Act¹ than the one to which you refer, which provides the munificent remuneration of four dollars per diem to the physician called to give expert testimony *only*. Should he be unfortunate enough to be acquainted with any *facts* in the case, they may wring from him as many *opinions* as they like in addition, and his reward is that of the ordinary witness, and nothing more.

The absurdity of the last statement seems so great that I feel compelled to say that the Supreme Court

¹ XVI. General Assembly, 1876.

might not so decide, but the circuit judge in this circuit did, and based his decision on the ground that the law stated the expert was called *only* for expert testimony.

Yours very truly,

S. H. WASHBURN, M.D.

MASON CITY, IOWA, March 4, 1884.

NEWS ITEMS.

DETROIT.

(From our Special Correspondent.)

THE COMMENCEMENT EXERCISES of the two medical colleges of Detroit are just finished.

THE DETROIT MEDICAL COLLEGE held its exercises in Whitney's Opera House, February 29th. Twenty-five men received the degree of M.D. In the evening, the Alumni of the College held their annual meeting. Following this was the banquet given by the Faculty and Alumni to the graduating class and their friends. All passed off in a most successful manner; peace and good will to all abounded on every hand.

THE MICHIGAN COLLEGE OF MEDICINE, on the evening of March 3d, held its commencement exercises in the same place. Twenty-seven diplomas were granted. After the exercises, the Faculty entertained their friends at a reception. At this, a harmony of feeling was verbally expressed between the three medical colleges of the State. To the outsider it was a most delightful thing to see brethren in the several medical colleges dwell together in unity. The Alumni of this college also, at a business and social meeting, elected officers for the coming year. It is stated that the matriculates of each college were about seventy-five.

THE SCHEME OF AMALGAMATING THE COLLEGES.—The efforts at the amalgamation of the two medical colleges in Detroit, which caused such a commotion last summer, have apparently subsided. Still, it is reported that the advocates of amalgamation are still at work, and hope in due time to accomplish their purpose. It is questionable whether they will succeed, as the three medical schools in the State represent at least three different modes of medical opinion—modes so different that a real union between them seems to an outsider impossible.

A STATE EXAMINING BOARD.—One of the speakers at a banquet given by one of the colleges suggested that, if a common State Examining Board be established, then every half dozen men, at such places in the State where it was convenient for them to do so, could organize a medical college, and thus secure for themselves the benefits of medical teachers' careers. Students could then be taught at or near their homes. As the classes would be small, each pupil could have the personal attention of each professor, and so to the utmost avail himself of the advantages of close contact with live teachers. In short, he thought that every doctor who so desired could then be a professor. By the State Examining Board, the work of the several bands of professors could be tested, and the really good teachers pointed out to the students.

He did not dwell upon the other effects of this scheme, only directing attention to the benefits it would confer

upon the average medical practitioner in making him a professor. With a *proper examining board*, it would seem as if this scheme would be the best yet devised. Of course all these bodies would be permitted to advertise as medical colleges do, and so the powers and qualifications of every doctor in the country would become a household word with the people. It would not matter that many of these small teaching bodies had the most meagre apparatus for demonstrating the science and art of medicine. In fact, it would be very like what is now going on in a city not a thousand miles from the Ohio River. A medical friend lately related to us the results of a personal examination of this school. On paper this school has a very high standard, but as a fact our friend found that the lectures were delivered in the office of one of the professors, and that the number of students in attendance was exactly six at the time of his visit. As to dissecting-room, chemical laboratory, apparatus, diagrams, clinic rooms, etc., they were not yet developed. We have felt at liberty to direct attention to this matter, as it was openly presented by a gentleman who is a professor in one of the Detroit medical schools.

THE NEW HARPER HOSPITAL is nearly completed, at an expense of more than one hundred thousand dollars, exclusive of the ground upon which it stands. The funds for its erection and the grounds and its endowment were mainly supplied by three persons—a small farmer, a retired merchant, and a market-woman. The gifts of the two latter were made over twenty-five years since. Their gifts of city real estate have so increased in value that the trustees were enabled, from this increased value, etc., to erect the new building. It is the largest hospital building in the State of Michigan.

THE MEDICAL SOCIETIES of the city are in active operation. The Wayne County Medical Society and the Detroit Medical and Library Association meet twice a month, and the Detroit Academy of Medicine every week. The results of the work of each are apparent in the reports and papers published in the medical journals.

CINCINNATI.

(From our Special Correspondent.)

MEDICAL COLLEGE OF OHIO.—The commencement exercises marking the close of the sixty-fifth annual session at this institution, were celebrated Friday evening, March 7, in Music Hall. The graduating class numbered one hundred.

The exercises were opened with remarks by the Dean, Prof. W. W. Seely, M.D., who assured the friends of the College of its continued prosperity, and called attention to the advancements made in the practical departments, and the improved facilities now afforded students for both didactic and clinical instruction.

The Hon. Flamen Ball, President of the Board of Trustees, then conferred the degree upon the applicants, reminding them briefly of the importance of the profession they were entering, of the arduous and responsible duties it entailed, and of their obligation to maintain its honor.

The valedictory address was delivered by Prof. P. S. Conner. He compared the present standard of medical education with what it was twenty-five years ago, and with what it ought to be. He said that, while no one

appreciated more than he did the advantages of a thorough preliminary education, he did not think that it should be considered a prerequisite to the study of medicine. Many men who have not had the opportunity to obtain a classic education are still capable of becoming competent physicians, and may in after-life gain much of what they could not get before entering the profession. The difficulty should be not in getting into the medical school, but in getting out. A uniform lengthening of the course of study to three or four years is also to be desired; but even in this a great deal depends on the student, some being capable of acquiring in two or three years what others require a much longer time to attain. Again, there always have been and always must be, schools of different grades. It is impossible for all to attain an equal degree of perfection.

One thing that is greatly needed, he said, is the placing of our colleges upon the basis of a substantial endowment, as has so advantageously been done in New York and Philadelphia, and more recently in the Johns Hopkins University at Baltimore.

A banquet was given by the Faculty in Dexter Hall, at the close of the exercises.

THE ALUMNI ASSOCIATION.—The meeting of alumni in the afternoon was largely attended.

The annual address was delivered by Dr. George T. Sutton, of Lawrenceburg, Indiana; his subject, "Changes in the Form of Diseases in the Ohio Valley."

Dr. David D. Beck, of Cincinnati, read a paper on "Color Blindness," presenting many important points in regard to principles that should be known to railroad men and water-craftsmen.

The following officers were elected:

President.—Dr. Isaac V. Gard, of Gressville, O.

Vice-Presidents.—Drs. W. W. Dawson, of Cincinnati; Horace Coleman, of Troy, O.; W. L. Richards, of Ky.; James M. Davis, of Ind.; Joseph Aub, of Cin.

Secretary and Treasurer.—Dr. J. M. French, of Cin.

Corresponding Secretary.—Dr. A. G. Drury, of Cin.

MIAMI MEDICAL COLLEGE.—The commencement exercises of the twenty-fourth session of this institution took place Thursday evening, March 6.

Dr. William Clendenin, Dean, delivered the opening address, in which he invited attention to the prosperous condition of the College, even during the past year, in which so many schools have suffered a great diminution of numbers in attendance.

The degree was then conferred by the Hon. Jacob D. Cox, President of the Board of Trustees, upon the twenty-eight members of the graduating class.

The valedictory address was delivered by Prof. W. H. Taylor, who took as his subject, "The Relation of the Medical Profession to the Community." He said that the special knowledge of the physician places him under obligations to the community higher and nobler than simply his personal relations to his patrons.

At the close of the exercises, a banquet was given by the Faculty at the Burnet House.

ALUMNI ASSOCIATION.—The Alumni met Thursday afternoon. Dr. Daniel Millikan, of Hamilton, Ontario, President of the Association, delivered an address on the researches made by physicians in the various other departments of science and art, as well as in medicine.

Dr. John G. Smalley delivered the valedictory on behalf of the graduating class.

The following officers were elected:

President.—Dr. E. M. Nelson.

Vice-Presidents.—Drs. F. H. Rowe, E. S. Ricketts, W. W. Hall, and J. E. Brown.

Secretary.—Dr. W. H. Falls.

Treasurer.—Dr. G. M. Allen.

Executive Committee.—Drs. W. A. Dun, J. F. Heady, and P. Zenner.

THE CHOLERA BACILLUS DISCOVERED IN A CALCUTTA WATER TANK.—We are informed that the discovery, by Dr. Koch and his colleagues, of cholera bacilli in a tank in the Baliaghata suburb of Calcutta has excited much interest in Calcutta, and is there regarded as clearly a great step forward in medical science. This has occurred since the date of Dr. Koch's fifth and last report, which appeared in our columns last week.

UNIVERSITY OF THE CITY OF NEW YORK.—The forty-third annual commencement of this University was held on Tuesday evening, March 11, and the degree of M.D. was conferred on one hundred and sixty-four graduates.

THE MEDICAL COLLEGE OF SOUTH CAROLINA held its Annual Commencement on Saturday evening, March 1st. Dr. J. FORD PRIOLEAU, the Dean of the College, read his Annual Report to the Faculty and Board of Trustees of the College, in which he stated that two years ago the Faculty instituted a graded course, extending over three sessions of attendance, available to those who wished it; the plan has been successful, and several of those who would probably have presented themselves at this time for diplomas, have postponed their graduation for another year.

The Faculty have rigidly insisted upon the period of three years being devoted to the study of the profession, inclusive of two sessions of collegiate exercises.

The degree of M.D. was conferred upon twenty candidates, and that of Phar.D. upon three candidates.

REGULATION OF THE PRACTICE OF MEDICINE IN MARYLAND; CONTEMPLATED LEGISLATION.—A bill has been recently introduced into the Maryland Legislature, by which the State Board of Health will become, under the new régime, the Examining Board for the State. All graduates of reputable medical colleges, no matter as to the school to which they belong, will be entitled to practise upon presenting their diplomas and obtaining proper certificates. All persons who shall have practised medicine for ten years, upon making affidavit to that effect, shall receive a certificate entitling them to practise. Those not possessing the above qualifications shall undergo an examination at the hands of the Board, and, if the result be satisfactory, shall receive a certificate from the Board entitling them to practise. Persons undergoing examination in accordance with the Act, will be required to pay \$10 to the Board. The examinations may be in writing, and shall be "of an elementary and practical character," embracing the subjects usually taught, including pathology and pathological anatomy. Itinerant physicians must pay to the sheriff \$50 for each month, under the penalty of being fined not less than \$50 nor more than \$500, or impris-

onment from one to twelve months.—*Maryland Med. Journ.*, March 1, 1884.

DICTIONARY OF PRACTICAL SURGERY.—Messrs. Smith, Elder & Co., of London, announce a *Dictionary of Practical Surgery*, to be edited by Mr. Christopher Heath. It will be published on the plan of Quain's *Dictionary of Medicine*, which has been so favorably received by the profession.

SANITARY COUNCIL OF THE MISSISSIPPI VALLEY.—The sixth annual meeting of the Sanitary Council of the Mississippi Valley will be held in the city of Memphis, Tennessee, on Friday, March 21, 1884, instead of on Wednesday, March 19th, as previously announced.

AN AUTHOR'S RIGHTS IN HIS LECTURES.—A case has recently been pending in the Scotch law-courts, the decision in which involved the question of the rights which university professors have in their delivered lectures. Judgment has been given, and the Court holds that professors are fully entitled to the benefits of the Copyright Acts; and that the mere delivery of the lectures to a class, each member of which has paid a fee to listen to them, does not in any way affect the lecturer's right of property in them, nor does it in any way give another person the right to publish or reproduce the lectures. In the present case, the action has been raised by the Professor of Moral Philosophy in the University of Glasgow against a local bookseller, who offered for sale a book entitled *An Aid to the Study of Moral Philosophy*, which was wholly or in substance a reproduction, more or less correct, of the lectures delivered by Professor Caird to his class in moral philosophy. With the view of still further protecting Professor Caird's interests, the judge gave him the full benefit of the Copyright Act, and not only bound over the defendant to stop the publication of the book in dispute, but ordered him to deliver up all the copies remaining in his hands, or within his control, in order that they might be destroyed. This decision is an authoritative statement upon a point of some importance, and about which there has heretofore existed some difference of opinion.—*British Medical Journal*, March 1, 1884.

EDINBURGH UNIVERSITY TERCENTENARY.—The following programme has been issued of the ceremonies by which the close of the Three Hundredth Session of the Edinburgh University will be celebrated. The festival is to extend over Wednesday, Thursday, and Friday, 16th, 17th, and 18th of April. It is proposed that on Tuesday evening a grand reception shall be given by the Magistrates and Council in the Museum of Science and Art. On Wednesday, the new College Buildings will be formally opened, and it is understood that the Senatus are endeavoring to get a member of the Royal family to undertake this duty. The proceedings on this day will begin with a reception by the Senatus in their hall, then there will be a religious service in St. Giles's, and afterwards the opening of the College Buildings will take place. On Thursday, or on one or other of the specified days, there will be a graduation ceremonial, at which a number of honorary degrees will be conferred. On Thursday evening there will be a grand banquet, probably in the Corn Exchange; on Friday afternoon a students' concert, and on the evening of that day a ball. It is not unlikely that in

connection with the celebrations an illumination of the principal streets of the city will be recommended by the Magistrates and Council, though this has not been finally determined.—*Medical Times and Gazette*, Feb. 23, 1884.

HEALTH IN MICHIGAN.—Reports to the State Board of Health for the week ending March 1, 1884, indicate that inflammation of the bowels has increased, that influenza has considerably decreased, and that pneumonia, intermittent fever, bronchitis, rheumatism, diarrhoea, remittent fever, and inflammation of the kidney, have decreased in area of prevalence.

Compared with the average for the month of February in the six years, 1877 to 1882, neuralgia was more prevalent, and pneumonia, diphtheria, bronchitis, remittent fever, typho-malarial fever, and rheumatism were less prevalent in February, 1884.

Including reports by regular observers and others, diphtheria was reported present during the week ending March 1st, and since, at ten places, scarlet fever at twenty-two places, and measles at seven places. Four cases of smallpox were reported at Bath, February 29th.

OBITUARY RECORD.—DR. MENDEZ ALVARO. On the 9th of December, 1883, a large number of physicians of Madrid and the provinces celebrated the fiftieth scientific anniversary of Dr. Mendez Alvaro; ten days later he died. Dean and Founder of the Spanish School of Hygiene, President of the Royal Academy of Medicine, and Director of *El Siglo Médico*, Dr. Alvaro was the author and editor of numerous works, the first, a manual on auscultation, having appeared in 1835. The professional and scientific interests of medicine in Spain had always in him a warm advocate and supporter. He was a distinguished savant, a learned writer, and a good man.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM MARCH 4 TO MARCH 10, 1884.

PERIN, GLOVER, *Lieutenant Colonel and Surgeon*.—Medical Director, Department of Dakota, leave of absence extended twenty days.—*S. O. 23, Headquarters Division of the Missouri*, March 5, 1884.

BILL, J. H., *Major and Surgeon*.—Granted leave of absence for one month.—*Par. 1, S. O. 20, Headquarters Department of the Platte*, March 3, 1884.

BACHE, DALLAS, *Major and Surgeon*.—Leave of absence extended seven days.—*Par. 1, S. O. 43, Headquarters Department of the East*, March 5, 1884.

STEPHENSON, WILLIAM, *First Lieutenant and Assistant Surgeon*.—Ordered to Fort Niobrara, Nebraska, for temporary duty, on completion of which to return to his station, Fort Omaha, Nebraska.—*Par. 4, S. O. 20, Headquarters Department of the Platte*, March 3, 1884.

FISHER, WALTER W. R. and PALHEMUS, ADRIAN S., *First Lieutenants and Assistant Surgeons*.—Assigned to duty in the Department of California.

STEPHENSON, WILLIAM, BORDEN, WILLIAM C., and CHAPIN, ALONZO R., *First Lieutenants and Assistant Surgeons*.—Assigned to duty in Department of the Platte.

ROBERTSON, REUBEN L., and EDIE, GUY L., *First Lieutenants and Assistant Surgeons*.—Assigned to duty in Department of Texas.

CROSBY, WILLIAM D., *First Lieutenant and Assistant Surgeon*.—Assigned to duty in Department of Arizona.

GAUDY, CHARLES M., *First Lieutenant and Assistant Surgeon*.—Assigned to duty in Department of the East.

PILCHER, JAMES E., *First Lieutenant and Assistant Surgeon*.—Assigned to duty in Department of Dakota.—*Par. 4, S. O. 55, A. G. O.*, March 6, 1884.